Google Discussions

EXAM PROFESSIONAL CLOUD SECURITY ENGINEER TOPIC 1 QUESTION 46 DISCUSSION

Actual exam question from Google's Professional Cloud Security Engineer
Question #: 46
Topic #: 1
[All Professional Cloud Security Engineer Questions]

A company is deploying their application on Google Cloud Platform. Company policy requires long-term data to be stored using a solution that can automatically replicate data over at least two geographic places.
Which Storage solution are they allowed to use?

A. Cloud Bigtable

B. Cloud BigQuery

C. Compute Engine SSD Disk

D. Compute Engine Persistent Disk

Show Suggested Answer

by mozammil89 at *March 19, 2020, 9:36 p.m.*

Comments

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ronron89 Highly Voted 4 years, 7 months ago
https://cloud.google.com/bigquery#:~:text=BigQuery%20transparently%20and%20automatically%20provides,charge%20and%20no%20additional%20setup.&text=BigQuery%20also%20provides%20ODBC%20and,interact%20with%20its%20powerful%20e

ngine.

Answer is B.

BigQuery transparently and automatically provides highly durable, replicated storage in multiple locations and high availability with no extra charge and no additional setup.

@xhova: https://cloud.google.com/bigquery-transfer/docs/locations
What it mentions here is once you create a replication. YOu cannot change a location. Here the question is about high availability. synchronous replication.

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mistryminded 3 years, 7 months ago

Correct answer is B.

BQ: https://cloud.google.com/bigquery-transfer/docs/locations#multi-regional-locations and https://cloud.google.com/bigquery-transfer/docs/locations#colocation_required

Bigtable: https://cloud.google.com/bigtable/docs/locations

PS: To people that are only commenting an answer, please provide a valid source to back your answers. This is a community driven forum and just spamming with wrong answers affects all of us.

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Arad 3 years, 8 months ago

Correct answer is A.
B is not correct because: "BigQuery does not automatically provide a backup or replica of your data in another geographic region."
https://cloud.google.com/bigquery/docs/availability

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mynk29 3 years, 5 months ago

"In either case, BigQuery automatically stores copies of your data in two different Google Cloud zones within the selected location."

your link

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YourFriendlyNeighborhoodSpider Most Recent 4 months, 2 weeks ago

Selected Answer: B

B. Cloud BigQuery
Explanation:

Cloud BigQuery is a fully managed data warehouse that automatically replicates data across multiple geographic regions to ensure high availability and durability. This aligns perfectly with the company policy requiring long-term data storage under these conditions.

A. Cloud Bigtable: While this is a NoSQL database service that supports geographical replication, its design is more specific to big data workloads, and it may not align with a broad requirement for long-term data storage as specifically defined by the question.

upvoted 1 times

manishk39 7 months ago

Selected Answer: A

Bigtable can replicate data across zones within a region and also replicate data across regions.
https://cloud.google.com/bigtable/docs/replication-overview

upvoted 1 times

ryumoe 1 year, 1 month ago

Answer is D, becasue:

A. Cloud Bigtable: This is a NoSQL database service, not designed for long-term data storage with automatic geographic replication.
B. Cloud BigQuery: This is a data warehouse service, excellent for analyzing data, but it doesn't inherently replicate data for disaster recovery.
C. Compute Engine SSD Disk: These are local disks attached to virtual machines, not designed for long-term storage or automatic replication.

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nccdebug 1 year, 5 months ago

BigQuery automatically stores copies of your data in two different Google Cloud zones within a single region in the selected

BigQuery automatically stores copies of your data in two different Google Cloud zones within a single region in the selected location.
https://cloud.google.com/bigquery/docs/locations

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adb4007 1 year, 7 months ago

In my opinion the key word is "automatic" because BigQuery and BigeTable are by default store on one zone for a piece of data (no replication) Withe BigTable replication is automatic : https://cloud.google.com/bigtable/docs/replication-overview and copy dataset on Bigquery is not automatic https://cloud.google.com/bigquery/docs/managing-datasets#copy-datasets I go to A

upvoted 1 times

uiuiui 1 year, 8 months ago

Selected Answer: D

this is geographic, not region, then the correct ans is D

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civilizador 1 year, 12 months ago

Answer is A - Cloud Bigtable.
Cloud Bigtable - Replication: This page provides a detailed overview of how Cloud Bigtable uses replication to increase the availability and durability of your data.

Cloud BigQuery: From the BigQuery product description, you can see that it is mainly focused on analyzing data and does not mention geographic replication of data as a feature.

Compute Engine Disks: The documentation for Compute Engine Disks explains that they are zonal resources, meaning they are replicated within a single zone, but not across multiple zones or regions.

upvoted 1 times

megalucio 2 years ago

Selected Answer: A

Correct one is A, as BigQuery does not provide replication but multi location storage which is different

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Ishu_awsguy 2 years, 1 month ago

I am drifting towards D
Regional persistent disk are safe from zonal failures.
The question mentions different geo places (not regions) .
So if zone seperation is done in 1 google region and we use regional persistent disk , the data will be safe from failure.
Also why would someone move their DR to BQ ? persistent disk make more sense to me

upvoted 1 times

Ishu_awsguy 2 years, 1 month ago

Point not to be confused ,
Even with BQ multi region , data s stores in different ones in 1 region not different geographic regions.

The question asks " different geographic places " which means essentially seperate zone storage will work.
hence answer is B (Big query) either single region or multi region .
Both suffice

upvoted 1 times

Ishu_awsguy 2 years, 1 month ago

--- Typo correction ---
Point not to be confused ,
Even with BQ multi region , data is stored in different zones in 1 region & not different geographic regions.

The question asks " different geographic places " which means essentially separate zone storage will work.
hence answer is B (Big query) either single region or multi region .
Both suffice

upvoted 1 times

deony 2 years, 2 months ago

I think answer is B
First of reason is long-term data solution, it's suitable for Cloud Storage and BigQuery
Second is that BigQuery dataset is placed to multi-region that means that two or more regions.

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Ric350 2 years, 3 months ago

The answer is definitely A. Here's why: https://cloud.google.com/bigtable/docs/replication-overview#how-it-works
Replication for Cloud Bigtable lets you increase the availability and durability of your data by copying it across multiple regions or multiple zones within the same region. You can also isolate workloads by routing different types of requests to different clusters.

BQ does not do cross-region replication. The blue highlighted note in the two links below clearly says the following:
"Selecting a multi-region location does NOT provide cross-region replication NOR regional redundancy. Data will be stored in a single region within the geographic location."
https://cloud.google.com/bigquery/docs/reliability-disaster#availability_and_durability
https://cloud.google.com/bigquery/docs/locations#multi-regions

upvoted 4 times

sameer2803 2 years, 5 months ago

Answer is A.
the below statement is from the google cloud documentation. https://cloud.google.com/bigquery/docs/reliability-disaster
BigQuery does not automatically provide a backup or replica of your data in another geographic region

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AwesomeGCP 2 years, 9 months ago

Selected Answer: B

B. Cloud BigQuery

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giovy_82 2 years, 11 months ago

Selected Answer: B

I was about to select D, BUT:
- the question says "long term data" -> which makes me think about BQ
- the replication of persistent disk is between different ZONES, but the question says "different geo location" -> which means different regions (if you look at the zone distribution, different zones in same region are located in the same datacenter)

but I still have doubt since the application data are not supposed to be stored in BQ , unless it is for analytics and so on.
GCS would have been the best choice, but in absence of this, probably B is the 1st choice.

upvoted 4 times

Table2022 2 years, 9 months ago

Thank God we have you giovy_82, very good explanation.

upvoted 2 times

piyush_1982 3 years ago

Selected Answer: A

https://cloud.google.com/bigquery/docs/availability#availability_and_durability

As per the link above BigQuery does not automatically provide a backup or replica of your data in another geographic region.
It only stores copies of data in two different Google Cloud zones within the selected location.

Reading through the link https://cloud.google.com/bigtable/docs/replication-overview
It states that the Bigtable replicates any changes to your data automatically within a region or multi-region.

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