

🔗 Google Discussions



Exam Professional Data Engineer All Questions

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EXAM PROFESSIONAL DATA ENGINEER TOPIC 1 QUESTION 144 DISCUSSION

Actual exam question from Google's Professional Data Engineer

Question #: 144

Topic #: 1

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You need to move 2 PB of historical data from an on-premises storage appliance to Cloud Storage within six months, and your outbound network capacity is constrained to 20 Mb/sec. How should you migrate this data to Cloud Storage?

- A. Use Transfer Appliance to copy the data to Cloud Storage
- B. Use `gsutil cp -z` to compress the content being uploaded to Cloud Storage
- C. Create a private URL for the historical data, and then use Storage Transfer Service to copy the data to Cloud Storage
- D. Use `trickle` or `ionice` along with `gsutil cp` to limit the amount of bandwidth `gsutil` utilizes to less than 20 Mb/sec so it does not interfere with the production traffic

Show Suggested Answer

by [deleted] at March 22, 2020, 9:36 a.m.

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🗨️ 👤 [Removed] Highly Voted 👍 4 years, 7 months ago

Answer: A

Description: Huge amount of data with low network bandwidth. Transfer appliance is best for moving data over 100TB

Description: Huge amount of data that req network bandwidth, Transfer appliance is best for moving data over 200 TB

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🗄️ 👤 **[Removed]** Highly Voted 👍 4 years, 7 months ago

Correct - A

👍 🔄 🚩 upvoted 10 times

🗄️ 👤 **patitonav** Most Recent 🕒 10 months, 1 week ago

Selected Answer: A

A . Easy, just by the amount of data

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🗄️ 👤 **Nirca** 1 year ago

Selected Answer: A

In 6 months - only 0.0290304 Petabytes will be uploaded. Right - compression might help, but we do not have any info to support the ration. Lets go for A

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🗄️ 👤 **barnac1es** 1 year, 1 month ago

Selected Answer: A

Physical Transfer: Transfer Appliance is a physical device provided by Google Cloud that you can use to physically transfer large volumes of data to the cloud. It allows you to avoid the limitations of network bandwidth and transfer data much faster.

Capacity: Transfer Appliance can handle large volumes of data, including the 2 PB you need to migrate, without the constraints of slow network speeds.

Efficiency: It is highly efficient for large-scale data transfers and is a practical choice for transferring multi-terabyte or petabyte-scale datasets.

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🗄️ 👤 **arien_chen** 1 year, 2 months ago

it would take 34 years.

Option A no doubt.

<https://cloud.google.com/static/architecture/images/big-data-transfer-how-to-get-started-transfer-size-and-speed.png>

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🗄️ 👤 **vaga1** 1 year, 5 months ago

Selected Answer: A

2,000,000,000,000,000 bytes = 2 Petabytes

20,000,000 bytes = 20 Megabytes

Once we do the math:

2 Petabytes / 20 Megabytes = 100,000,000 seconds forecasted to migrate the data.

100,000,000 seconds =

1,666,666.7 minutes =

27,777.8 hours =

1,157.4 days

6 months = 180 days

1,157.4 days > 180 days

Still, with such amount Transfer Appliance is recommended.

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🗄️ 👤 **musumusu** 1 year, 8 months ago

Transfer alliance is a physical device of size like cabin luggage or slightly larger.

It has Seagate/WD harddisk (these are name of companies) size varries from 100 to 480 TB.

In our case 2PB (2000 TB) accordingly. Google send you this and transfer data into it by wire connection and then upload data from this to GCS and empty the appliance.

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🗄️ 👤 **AzureDP900** 1 year, 10 months ago

This is no brainer question, A is right

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🗄️ 👤 **zellick** 1 year, 11 months ago

Selected Answer: A

A is the answer.

<https://cloud.google.com/transfer-appliance/docs/4.0/overview>

Transfer Appliance is a high-capacity storage device that enables you to transfer and securely ship your data to a Google upload facility, where we upload your data to Cloud Storage.

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🗂️ 👤 **jkhong** 2 years ago

Selected Answer: A

Problem: Transferring 2 peta data to Cloud Storage

Considerations: Bad network speed

Bad network = cannot initiate from client's end through network. So, B, C is out
D will still be super slow. At this speed it will take 27,777 hours to transfer the data

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🗂️ 👤 **sumanshu** 3 years, 4 months ago

Vote for A

A - Correct , Transfer Appliance for moving offline data, large data sets, or data from a source with limited bandwidth

<https://cloud.google.com/storage-transfer/docs/overview>

B - Eliminated (Not recommended for large storage). recommended for < 1TB

C - Its ONLINE, but we have bandwidth issue - So eliminated.

D - Eliminated (Not recommended for large storage). recommended for < 1TB

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🗂️ 👤 **SteelWarrior** 4 years, 1 month ago

Correct answer is A. with little calculation we know the kind of data will require approx 19 months to transfer on 20Mbps bandwidth. Also, google recommends Transfer appliance for petabytes of data.

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🗂️ 👤 **haroldbenites** 4 years, 2 months ago

A is correct

👍 ↩ 🚩 upvoted 3 times

🗂️ 👤 **Rajuuu** 4 years, 3 months ago

Correct - A

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🗂️ 👤 **Rajokkiyam** 4 years, 7 months ago

Answer A

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