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Exam Professional Cloud Security Engineer All Questions

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EXAM PROFESSIONAL CLOUD SECURITY ENGINEER TOPIC 1 QUESTION 76 DISCUSSION

Actual exam question from Google's Professional Cloud Security Engineer

Question #: 76

Topic #: 1

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Your company is storing sensitive data in Cloud Storage. You want a key generated on-premises to be used in the encryption process.

What should you do?

- A. Use the Cloud Key Management Service to manage a data encryption key (DEK).
- B. Use the Cloud Key Management Service to manage a key encryption key (KEK).
- C. Use customer-supplied encryption keys to manage the data encryption key (DEK).
- D. Use customer-supplied encryption keys to manage the key encryption key (KEK).


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by  [Raushanr](#) at *Sept. 18, 2020, 5:41 a.m.*

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 [HateMicrosoft](#) [Highly Voted](#) 4 years, 4 months ago

The answer is: C

This is a Customer-supplied encryption keys (CSEK).

This is a customer-supplied encryption key (CSEK).
We generate our own encryption key and manage it on-premises.
A KEK never leaves Cloud KMS. There is no KEK or KMS on-premises.

Encryption at rest by default, with various key management options
<https://cloud.google.com/security/encryption-at-rest>

👍 🔄 🚩 upvoted 33 times

🗄️ 👤 **sudarchary** Highly Voted 👍 3 years, 5 months ago

Selected Answer: D

Reference Links:

<https://cloud.google.com/kms/docs/envelope-encryption>

<https://cloud.google.com/security/encryption-at-rest/customer-supplied-encryption-keys>

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🗄️ 👤 **1209apl** Most Recent 🕒 3 months ago

Selected Answer: C

Answer is C: Customer-Supplied DEK.

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🗄️ 👤 **brpjp** 10 months, 1 week ago

Correct Answer - D - CSEK provided by the customer, Key encryption key (KEK) for chunk keys. Wraps the chunk keys. As per https://cloud.google.com/docs/security/encryption/customer-supplied-encryption-keys#cloud_storage. Some of us have provided correct link but not interpreted correctly and selected answer C, which is not correct. A & B not correct because it is CSEK.

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🗄️ 👤 **Mr_MIXER007** 11 months ago

Selected Answer: C

The answer is: C

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🗄️ 👤 **3d9563b** 1 year ago

Selected Answer: C

By using customer-supplied encryption keys (CSEK) to manage the data encryption key (DEK), you can ensure that the encryption process utilizes a key that was generated and controlled on-premises, meeting your security and compliance requirements.

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

`customer-supplied encryption keys` == `DEK`, so the only answer that makes sense is A use KMS for KEK to wrap the DEK

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

Selected Answer: C

Can't be A/B because "key generated on-premises" requirement. KEK is KMS specific.

Why (C):

https://cloud.google.com/docs/security/encryption/customer-supplied-encryption-keys#cloud_storage --> "The raw CSEK is used to unwrap wrapped chunk keys, to create raw chunk keys in memory. These are used to decrypt data chunks stored in the storage systems. These keys are used as the data encryption keys (DEK) in Google Cloud Storage for your data."

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🗄️ 👤 **madcloud32** 1 year, 4 months ago

Selected Answer: C

C is answer. DEK

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🗄️ 👤 **mjcts** 1 year, 5 months ago

Selected Answer: C

Customer-supplied because it is generated on prem. And we can only talk about DEK. KEK is always managed by Google

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🗄️ 👤 **rsamant** 1 year, 7 months ago

D, CSEK is used for KEK, DEK is always generated by Google as different chunks use different DEK

Raw CSEK Storage system memory Provided by the customer.

Key encryption key (KEK) for chunk keys.

Wraps the chunk keys. Customer-requested operation (e.g., insertObject or getObject) is complete

<https://cloud.google.com/docs/security/encryption/customer-supplied-encryption-keys>

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🗨️ 👤 **rottzy** 1 year, 10 months ago

C, KEK is google managed

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🗨️ 👤 **Xoxoo** 1 year, 10 months ago

Selected Answer: C

To use a key generated on-premises for encrypting data in Cloud Storage, you should:

C. Use customer-supplied encryption keys to manage the data encryption key (DEK).

With customer-supplied encryption keys (CSEK), you can provide your own encryption keys, generated and managed on-premises, to encrypt and decrypt data in Cloud Storage. The data encryption key (DEK) is the key used to encrypt the actual data, and by using CSEK, you can manage this key with your own on-premises key management system.

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🗨️ 👤 **Xoxoo** 1 year, 10 months ago

Options A and B involve using Google Cloud's Key Management Service (KMS), which generates and manages encryption keys within Google Cloud, not on-premises.

Option D is not a common practice and is not directly supported for encrypting data in Cloud Storage.

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🗨️ 👤 **ananta93** 1 year, 10 months ago

Selected Answer: C

The Answer is C. The raw CSEK is used to unwrap wrapped chunk keys, to create raw chunk keys in memory. These are used to decrypt data chunks stored in the storage systems. These keys are used as the data encryption keys (DEK) in Google Cloud Storage for your data.

https://cloud.google.com/docs/security/encryption/customer-supplied-encryption-keys#cloud_storage

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🗨️ 👤 **desertlotus1211** 1 year, 11 months ago

Answer is C:

https://cloud.google.com/docs/security/encryption/customer-supplied-encryption-keys#cloud_storage

If you look at the ENTIRE process - it CSEK is used to create the DEK (final product) for decryption if its data...

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🗨️ 👤 **RuchiMishra** 1 year, 11 months ago

Selected Answer: D

https://cloud.google.com/docs/security/encryption/customer-supplied-encryption-keys#cloud_storage

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🗨️ 👤 **civilizador** 1 year, 11 months ago

C . The answer is C and I don't understand why some people here rewriting google official doc here and saying answer is D?? Here is the link please read it carefully this is not an Instagramm feed. Please when you reading 3 seconds and come here you start confusing many people . Here is link SPECIFICALLY FOR CLOUD STORAGE .

https://cloud.google.com/docs/security/encryption/customer-supplied-encryption-keys#cloud_storage

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🗨️ 👤 **MaryKey** 1 year, 10 months ago

I'm confused here - the article on Google says literally:

"Raw CSEK - Provided by the customer.

Key encryption key (KEK) for chunk keys.

Wraps the chunk keys".

In other words - KEK, not DEK

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