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Exam Professional Cloud Security Engineer All Questions

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📄 EXAM PROFESSIONAL CLOUD SECURITY ENGINEER TOPIC 1 QUESTION 100 DISCUSSION

Actual exam question from Google's Professional Cloud Security Engineer

Question #: 100

Topic #: 1

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You need to implement an encryption at-rest strategy that reduces key management complexity for non-sensitive data and protects sensitive data while providing the flexibility of controlling the key residency and rotation schedule. FIPS 140-2 L1 compliance is required for all data types. What should you do?

- A. Encrypt non-sensitive data and sensitive data with Cloud External Key Manager.
- B. Encrypt non-sensitive data and sensitive data with Cloud Key Management Service
- C. Encrypt non-sensitive data with Google default encryption, and encrypt sensitive data with Cloud External Key Manager.
- D. Encrypt non-sensitive data with Google default encryption, and encrypt sensitive data with Cloud Key Management Service.

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by [mouchu](#) at May 17, 2022, 9:44 a.m.

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👤 [Chute5118](#) [Highly Voted](#) 3 years ago



[Selected Answer: D](#)

Both B and D seem correct tbh. D might be "more correct" depending on the interpretation.

"reduces key management complexity for non-sensitive data" - Google default encryption

"protects sensitive data while providing the flexibility of controlling the key residency and rotation schedule" - Customer Managed Key

   upvoted 6 times

  **AzureDP900** 2 years, 8 months ago

I agree, D is right

   upvoted 2 times

  **zelck** Highly Voted 2 years, 10 months ago

Selected Answer: D

D is the answer.

   upvoted 5 times

  **Zek** Most Recent 7 months, 3 weeks ago

Selected Answer: D

<https://cloud.google.com/kms/docs/key-management-service#choose>

For example, you might use software keys for your least sensitive data and hardware or external keys for your most sensitive data.

FIPS 140-2 Level 1 validated applies to both Google default encryption and Cloud Key Management Service (KMS)


   upvoted 1 times

  **dija123** 1 year, 4 months ago

Selected Answer: D

D. Encrypt non-sensitive data with Google default encryption, and encrypt sensitive data with Cloud Key Management Service (KMS)

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  **MHD84** 1 year, 11 months ago

corrct Answer is D, both KMS and default encryption are FIPS 140-2 L1 compliance <https://cloud.google.com/kms/docs/key-management-service#choose>

   upvoted 3 times

  **[Removed]** 2 years ago

Selected Answer: D

"D"



Default encryption is Fips 140-2 L2 compliant (reference A below). Cloud KMS provides the rotation convenience desired (reference B below).

References:

A- <https://cloud.google.com/docs/security/encryption/default-encryption>

B- <https://cloud.google.com/docs/security/key-management-deep-dive>

   upvoted 3 times

  **passex** 2 years, 7 months ago

"reduces key management" & "FIPS 140-2 L1 compliance is required for all data types" - strongly suggests answer B

   upvoted 1 times

  **rrvv** 2 years, 10 months ago

As FIPS 140-2 L1 compliance is required for all types of data, Cloud KMS should be used to manage encryption. Correct answer is B

<https://cloud.google.com/docs/security/key-management-deep-dive#software-protection-level>

level:~:text=The%20Cloud%20KMS%20binary%20is%20built%20against%20FIPS%20140%2D2%20Level%201%E2%80%933validated%20Cryptographic%20Primitives%20of%20this%20module

   upvoted 1 times

  **sumundada** 3 years ago

Selected Answer: D

Google uses a common cryptographic library, Tink, which incorporates our FIPS 140-2 Level 1 validated module, BoringCrypto, to implement encryption consistently across almost all Google Cloud products. To provide flexibility of controlling the key residency and rotation schedule, use google provided key for non-sensitive and encrypt sensitive data with Cloud Key Management Service

   upvoted 3 times

  **nacying** 3 years, 1 month ago

Selected Answer: B

base on "FIPS 140-2 L1 compliance is required for all data types"

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🗄️ 👤 **cloudprincipal** 3 years, 1 month ago

Selected Answer: D

KMS is ok for fips 140-2 level 1

<https://cloud.google.com/docs/security/key-management-deep-dive#platform-overview>

👍 ↩ 🚩 upvoted 2 times

🗄️ 👤 **cloudprincipal** 3 years, 1 month ago

Regarding FIPS 140-2 level 1 and GCP default encryption:

Google Cloud uses a FIPS 140-2 validated Level 1 encryption module (certificate 3318) in our production environment.

https://cloud.google.com/docs/security/encryption/default-encryption?hl=en#encryption_of_data_at_rest

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🗄️ 👤 **mikesp** 3 years, 1 month ago

In my opinion, the answer is B. The question says that it is necessary to control "key residency and rotation schedule" for both types of data. Default encryption at rest does not provide that but Cloud KMS does. Furthermore, Cloud KMS is FIPS140-2 level 1.

<https://cloud.google.com/docs/security/key-management-deep-dive>

👍 ↩ 🚩 upvoted 3 times

🗄️ 👤 **csrazdan** 2 years, 7 months ago

The answer is D.

1. reduce key management complexity for non-sensitive data --> Google Managed key
2. protects sensitive data while providing the flexibility of controlling the key residency and rotation schedule --> KMS

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🗄️ 👤 **szl0144** 3 years, 2 months ago

D is the wander

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🗄️ 👤 **mouchu** 3 years, 2 months ago

Answer = D

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