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Exam Professional Cloud Security Engineer All Questions

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EXAM PROFESSIONAL CLOUD SECURITY ENGINEER TOPIC 1 QUESTION 173 DISCUSSION

Actual exam question from Google's Professional Cloud Security Engineer

Question #: 173

Topic #: 1

[All Professional Cloud Security Engineer Questions]

You are working with a client who plans to migrate their data to Google Cloud. You are responsible for recommending an encryption service to manage their encrypted keys. You have the following requirements:

✑ The master key must be rotated at least once every 45 days.

✑ The solution that stores the master key must be FIPS 140-2 Level 3 validated.

✑ The master key must be stored in multiple regions within the US for redundancy.

Which solution meets these requirements?

A. Customer-managed encryption keys with Cloud Key Management Service

B. Customer-managed encryption keys with Cloud HSM

C. Customer-supplied encryption keys

D. Google-managed encryption keys

Show Suggested Answer

by Baburao at *Sept. 3, 2022, 7:15 p.m.*

Comments

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shetniel Highly Voted 1 year, 4 months ago

Selected Answer: B

The only 2 options that satisfy FIPS 140-2 Level 3 requirement are Cloud HSM or Cloud EKM.
https://cloud.google.com/kms/docs/key-management-service#choose

upvoted 10 times

AwesomeGCP Highly Voted 1 year, 9 months ago

Selected Answer: B

B. Customer-managed encryption keys with Cloud HSM

upvoted 7 times

KLei Most Recent 7 months, 1 week ago

Selected Answer: B

Cloud HSM helps you enforce regulatory compliance for your workloads in Google Cloud. With Cloud HSM, you can generate encryption keys and perform cryptographic operations in FIPS 140-2 Level 3 validated HSMs.

upvoted 1 times

Xoxoo 10 months, 1 week ago

Selected Answer: B

To meet the given requirements, you should recommend using Customer-managed encryption keys with Cloud HSM. This solution allows you to manage your own encryption keys while leveraging the Google Cloud Hardware Security Module (HSM) service, which is FIPS 140-2 Level 3 validated. With Cloud HSM, you can rotate the master key at least once every 45 days and store it in multiple regions within the US for redundancy.

While Customer-managed encryption keys with Cloud Key Management Service (KMS) (option A) is a valid choice for managing encryption keys, it does not provide the FIPS 140-2 Level 3 validation required by the given requirements.

Customer-supplied encryption keys (option C) are not suitable for this scenario as they do not offer the same level of control and security as customer-managed keys.

Google-managed encryption keys (option D) would not meet the requirement of having a solution that stores the master key validated at FIPS 140-2 Level 3.

upvoted 6 times

cyberpunk21 11 months, 1 week ago

Selected Answer: B

In all options only HMS have L3 validation

upvoted 1 times

TonytheTiger 1 year, 8 months ago

Answer: B
https://cloud.google.com/docs/security/cloud-hsm-architecture

upvoted 2 times

Littleivy 1 year, 8 months ago

Selected Answer: B

Cloud HSM is right answer

upvoted 4 times

AzureDP900 1 year, 8 months ago

Cloud HSM is right answer is B

upvoted 2 times

soltium 1 year, 9 months ago

B.Cloud HSM can be rotated automatically(same front end as KMS), FIPS 140-2 level 3 validated, support multi-region.

upvoted 4 times

zellck 1 year, 10 months ago

Selected Answer: B

B is the answer.

upvoted 4 times

Sav94 1 year, 10 months ago

Both A and B. But question ask for redundancy. So I think it's A.

upvoted 1 times

Random_Mane 1 year, 10 months ago

Selected Answer: B

Selected Answer: B

B. https://cloud.google.com/docs/security/key-management-deep-dive
https://cloud.google.com/kms/docs/faq

"Keys generated with protection level HSM, and the cryptographic operations performed with them, comply with FIPS 140-2 Level 3."

upvoted 3 times

Baburao 1 year, 10 months ago

This should be definitely A. Only Cloud KMS supports FIPS 140-2 levels1, 2 and 3.
https://cloud.google.com/kms/docs/faq#standards

upvoted 1 times

Arturo_Cloud 1 year, 10 months ago

I disagree with you, you are being asked only for FIPS 140-2 Level 3 and multiple availability, so B) is the best answer. Here is the much more detailed evidence.
https://cloud.google.com/docs/security/cloud-hsm-architecture

upvoted 4 times

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