EXAM ASSOCIATE CLOUD ENGINEER TOPIC 1 QUESTION 245 DISCUSSION

Actual exam question from Google's Associate Cloud Engineer
Question #: 245
Topic #: 1
[All Associate Cloud Engineer Questions]

You want to set up a Google Kubernetes Engine cluster. Verifiable node identity and integrity are required for the cluster, and nodes cannot be accessed from the internet. You want to reduce the operational cost of managing your cluster, and you want to follow Google-recommended practices. What should you do?

A. Deploy a private autopilot cluster.

B. Deploy a public autopilot cluster.

C. Deploy a standard public cluster and enable shielded nodes.

D. Deploy a standard private cluster and enable shielded nodes.

Show Suggested Answer

by gpais at *Aug. 2, 2023, 9:31 p.m.*

Comments

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scanner2 Highly Voted 1 year, 1 month ago

Selected Answer: A

In a private cluster, nodes only have internal IP addresses, which means that nodes and Pods are isolated from the internet by default.
https://cloud.google.com/kubernetes-engine/docs/how-to/private-clusters

Shielded GKE Nodes provide strong, verifiable node identity and integrity to increase the security of Google Kubernetes Engine (GKE) nodes.
Note: For GKE Autopilot clusters, the Shielded GKE Nodes feature is enabled by default and cannot be overridden.
https://cloud.google.com/kubernetes-engine/docs/how-to/shielded-gke-nodes

upvoted 9 times

Timfdklfajlksdjlakf Most Recent 1 month, 3 weeks ago

Selected Answer: A

scanner2 provided the correct answer.

upvoted 1 times

ashrafh 2 months, 1 week ago

as per chatgpt

Option A. Deploy a private autopilot cluster is a good choice because it combines:

Reduced Operational Costs: Google manages the infrastructure, scaling, and maintenance, minimizing your management overhead.
Enhanced Security: Private Autopilot clusters use shielded nodes, ensuring verifiable node identity and integrity, and are not accessible from the internet.
Google-Recommended Practices: Autopilot clusters follow best practices for performance and security with minimal configuration required from you.

upvoted 1 times

jithinlife 6 months, 2 weeks ago

Selected Answer: D

Deploying a standard private cluster and enabling shielded nodes would meet all the requirements. In a private cluster, nodes are not accessible from the internet by default, ensuring enhanced security. Enabling shielded nodes provides verifiable node identity and integrity, further strengthening the security measures. Additionally, following Google-recommended practices, such as using standard clusters instead of autopilot clusters, offers more control and helps reduce operational costs.

upvoted 1 times

BuenaCloudDE 3 months ago

Shielded GKE Nodes feature is enabled by default.

upvoted 2 times

BuenaCloudDE 3 months ago

For GKE Autopilot clusters.

upvoted 2 times

sukouto 7 months, 2 weeks ago

Selected Answer: D

Reposting this subcomment because I believe most people are reading this incorrectly, and I want to contribute to the answers ratio:

Why is everyone so sure that "operational cost" refers to work-hours and not money? (i.e. "operating costs")

From Wikipedia: Operating costs or operational costs, are the expenses which are related to the operation of a business, or to the operation of a device, component, piece of equipment or facility.

This question is asking to reduce the MONETARY cost. Standard costs less than Autopilot. Accordingly, the answer should be D.

upvoted 1 times

sukouto 7 months, 2 weeks ago

FYI to all, the phrase "operational cost" is only found in two GCP documents (both blog articles, not official product documentation), and they use competing definitions... So this is a poorly worded question.

That said, since this was phrased as "operational cost of *managing your cluster*", I think I may have been incorrect. It seems perhaps this is indeed referring to the reduction of work-hours and manual effort needed to manage the cluster.

upvoted 1 times

sukouto 8 months, 2 weeks ago

Since A and D both seem to provide the identity/integrity and internet inaccessibility, it seems the critical distinction is

based on "reduce the operational cost of managing your cluster". "Operational cost" doesn't seem to be a commonly used term (from a quick google search), but "operating costs" seem to refer specifically to monetary expenses, not work-hours. Wouldn't a standard cluster be cheaper than autopilot? Thus the answer is D, not A?

upvoted 1 times

KelvinToo 9 months, 3 weeks ago

Selected Answer: D

ChatGPT says Option D,
By following this approach, you can meet your requirements for node security and access control while also benefitting from the operational cost savings associated with managed GKE clusters and Google's best practices for security.

upvoted 2 times

PiperMe 7 months, 3 weeks ago

Stop. Using. Chat GPT.

D is viable for security, but with the standard GKE mode, you'd be responsible for managing the control plane and node-level operations, increasing operational complexity. "You want to reduce the operational cost of managing your cluster"

Option A leverages the managed experience of Autopilot with the security of private nodes and shielded GKE for node identity/integrity. The answer is A.

upvoted 1 times

sukouto 7 months, 2 weeks ago

Why is everyone so sure that "operational cost" refers to work-hours and not money? (i.e. "operating costs")

From Wikipedia: Operating costs or operational costs, are the expenses which are related to the operation of a business, or to the operation of a device, component, piece of equipment or facility.

This question is asking to reduce the MONETARY cost. Standard costs less than Autopilot. Accordingly, the answer should be D.

upvoted 1 times

MARINE777 9 months, 4 weeks ago

Selected Answer: D

Autopilot clusters are fully managed and do not have the option to restrict internet access.
In a private cluster, nodes are not accessible from the internet by default. Enabling shielded nodes provides verifiable node identity and integrity.

upvoted 1 times

PiperMe 7 months, 3 weeks ago

This is incorrect. By default, Autopilot clusters create nodes within a private VPC network. This inherently restricts internet access to the nodes themselves. The answer is A.

upvoted 2 times

ArtistS 1 year ago

A is correct. “reduce the operational cost of managing your cluster”, means you need to choose an autopilot cluster. Google will manage your cluster configuration. And about the “cannot be accessed from the internet” you should use shielded nodes.

upvoted 2 times

rsvd 1 year, 2 months ago

Selected Answer: A

Note: For GKE Autopilot clusters, the Shielded GKE Nodes feature is enabled by default and cannot be overridden.

upvoted 4 times

Cherrycardo 1 year, 2 months ago

Selected Answer: A

https://cloud.google.com/kubernetes-engine/docs/how-to/shielded-gke-nodes

"For GKE Autopilot clusters, the Shielded GKE Nodes feature is enabled by default and cannot be overridden"

upvoted 3 times

3arle 1 year, 2 months ago

Selected Answer: A

The Shielded GKE node feature is enabled by default for all Autopilot clusters and is impossible to disable manually.
https://www.googlecloudcommunity.com/gc/Architecture-Framework-Community/Manage-GKE-Cluster-Security-with-Autopilot-Mode/ba-p/396435

upvoted 2 times

qannik 1 year, 2 months ago

Selected Answer: D

https://cloud.google.com/kubernetes-engine/docs/how-to/shielded-gke-nodes

upvoted 1 times

gpais 1 year, 2 months ago

Selected Answer: D

Shielded GKE Nodes provide strong, verifiable node identity and integrity to increase the security of GKE nodes and should be enabled on all GKE clusters.: https://cloud.google.com/kubernetes-engine/docs/how-to/hardening-your-cluster

upvoted 1 times

Abbru00 12 months ago

For GKE Autopilot clusters, the Shielded GKE Nodes feature is enabled by default and cannot be overridden.

upvoted 1 times