



Exam Readiness Workshop
A Partner Certification Academy offering



Professional Cloud Security Engineer

pls-erw-pcse-student-slides-1-2310

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Thank you!



Google Cloud

Session Logistics

- When you have a question, please:
 - Click the Raise hand button in Google Meet.
 - Or add your question to the Q&A section of Google Meet.
 - Please note that answers may be deferred until the end of the session.
- These slides are available in the Student Lecture section of your Qwiklabs classroom.
- The session is **not recorded**.
- Google Meet does not have persistent chat.
 - If you get disconnected, you will lose the chat history.
 - Please copy any important URLs to a local text file as they appear in the chat.

Week's agenda



- 01 Program overview
- 02 Registering for the exam
- 03 Remote Proctored Exam
- 04 Exam Guide
- 05 Hands On Study Aids and Resources
- 06 General test taking best practices



Program overview

Google Cloud

Exam Readiness Workshop

A Partner Certification Academy offering

What is an Exam Readiness Workshop?

Led by Google Cloud instructors, this 2-hour virtual workshop helps learners assess their readiness for the exam, and identify areas where they need more preparation. The instructors highlight key topics referenced in the certification exam guide and answers questions you may have.



Note: Vouchers for the exam are not provided as part of this workshop

Google Cloud



Registering for the exam

Google Cloud

Exam Registration Process

[Back to Google Cloud Certification](#)

Professional Data Engineer

Professional Data Engineers enable data-driven decision making by collecting, transforming, and publishing data. A Data Engineer should be able to design, build, operationalize, secure, and monitor data processing systems with a particular emphasis on security and compliance; scalability and efficiency; reliability and fidelity; and flexibility and portability. A Data Engineer should also be able to leverage, deploy, and continuously train pre-existing machine learning models.

The Professional Data Engineer exam assesses your ability to:

- ✓ Design data processing systems
- ✓ Ensure solution quality
- ✓ Operationalize machine learning models
- ✓ Build and operationalize data processing systems

[Register](#) [View FAQs](#)

Also available in [Japanese](#).

Quick links

Exam guide

Train for the exam

Review sample questions

Google Cloud Free Tier

Community: Learning & Certification Hub

Click here to start

<https://cloud.google.com/certification/data-engineer>

Google Cloud

<https://cloud.google.com/certification/data-engineer>

Kryterion Website - Login

The screenshot shows a web browser window with the URL webassessor.com/googlecloud. At the top, there's a banner for "Google Cloud" and another for "KRYTERION™ GLOBAL TESTING SOLUTIONS". Below the banners, a heading says "Ready to start?". A message encourages users to log in with their Google Cloud Webassessor account. There are two input fields: "Login" and "Password". Below the password field is a link "Forgot password?". A "LOGIN" button is at the bottom. A blue callout box with the text "Login with existing account" points to the "Login" input field. At the bottom of the page, a note about exam policies and terms and conditions is displayed.

Ready to start?

Please log in with your Google Cloud Webassessor account to see our catalog and register for an exam.

Login

Password

[Forgot password?](#)

LOGIN

Make sure you review the [retake policy](#) and [recertification eligibility criteria](#) before you take an exam. There is a limit on the number of times you can take the exam and a waiting period between attempts (even if you are taking the same exam in a different language). It is the user's responsibility to adhere to these [terms and conditions](#) to avoid possible suspension or rejection of exam results.

Forgot your login?

Email Kryterion support:
support@kryteriononline.com

<https://webassessor.com/googlecloud>

Google Cloud

Register for an exam

The screenshot shows a web-based registration interface for Google Cloud exams. At the top left is the Google Cloud logo. At the top right is the Kryterion logo with the tagline "GLOBAL TESTING SOLUTIONS". Below the logos is a navigation bar with links: Receipts, Register For An Exam (which is highlighted in blue), My Assessments, and Home. A large blue button at the bottom center says "REGISTER FOR AN EXAM". To the left of the "REGISTER FOR AN EXAM" button, there is a message about logging in and exam policies. To the right of the button, two blue speech bubble callouts point to the "Register For An Exam" link: one pointing up and one pointing down.

You last logged in 18 August 2022 at 12:14PM MST.

Make sure you review the [relake policy](#) and [recertification eligibility criteria](#) before you take an exam. There is a limit on the number of times you can take an exam and a waiting period between attempts (even if you are taking the same exam in a different language). It is your responsibility to adhere to these [terms and conditions](#) to avoid possible suspension or rejection of exam results.

Launching your online exam? Due to high volume, you may experience additional wait time (15-20 mins) before connecting with a proctor. Do not disconnect. We appreciate your patience!

REGISTER FOR AN EXAM

Click here
... or here

Google Cloud

Select the Certification

+ Google Cloud Certified - Professional Cloud Network Engineer (English)	This is the Google Cloud Certified - Professional Cloud Network Engineer exam. Please refer to the exam guide for current topics and delivery methods. You may attempt an exam at a test center or online and each attempt regardless of delivery method or language counts toward the total number of attempts and the waiting period between attempts still applies (see our Retake Policy here).	multiple
+ Google Cloud Certified - Professional Cloud Security Engineer (English)	This is the Google Cloud Certified - Professional Cloud Security Engineer exam. Please refer to the exam guide for current topics and delivery methods. You may attempt an exam at a test center or online and each attempt regardless of delivery method or language counts toward the total number of attempts and the waiting period between attempts still applies (see our Retake Policy here).	multiple
- Google Cloud Certified - Professional Data Engineer (English)	This is the Google Cloud Certified - Professional Data Engineer exam. Please refer to the exam guide for current topics that are covered on the exam. You may attempt an exam at a test center or online and each attempt regardless of delivery method or language counts toward the total number of attempts and the waiting period between attempts still applies (see our Retake Policy here).	multiple
Google Cloud Certified - Professional Data Engineer (English)	Pre-requisites: [link] Retake Policy: [link]	Remote Proctored USD 200.00 Buy Now
Google Cloud Certified - Professional Data Engineer (English)	Pre-requisites: [link] Retake Policy: [link]	Onsite Proctored USD 200.00 Buy Now

Click here to expand the section

Take exam from office/home/other location

Go into a Kryterion testing center

Kryterion Test Center (Onsite Proctored)

Enter search criteria

Choose options below to narrow down the list of testing centers displayed.

Country: United States Province/State: North Dakota City: All OR
Postal Code Range 10 miles

Select the Testing Center where you wish to take the test.

AVAILABLE TESTING CENTERS

<input type="checkbox"/> Testing Location Name	Address	City	Province/State	Country	Map	Important Location Information
<input checked="" type="checkbox"/> Minot State University	500 West University Avenue	Minot	North Dakota	United States	Map	Details
<input type="checkbox"/> Valley City State University Testing Center	101 College St SW	Valley City	North Dakota	United States	Map	Details

Select a location

Click Select

Google Cloud

Choose Date and Time

Pick and date and time

Selected Testing Center

Minot
State
University
500 West
University
Avenue
Minot,
North
Dakota
58707

Select Date



Select Start Time

- 8:00 (8:00 AM)
- 8:15 (8:15 AM)
- 8:30 (8:30 AM)
- 8:45 (8:45 AM)
- 9:00 (9:00 AM)
- 9:15 (9:15 AM)
- 9:30 (9:30 AM)
- 9:45 (9:45 AM) (selected)
- 10:00 (10:00 AM)
- 10:15 (10:15 AM)
- 10:30 (10:30 AM)

Scroll to bottom

I acknowledge that I have read and understood all the information stated in the above text box and agree to abide by these terms and rules.

Click Select

Select Cancel

Google Cloud

Remote Proctored Option

Select your Time Zone

Please choose a TimeZone to view the available Start times.

Time Zone: America/Kentucky/Louisville



Select Start Time

- 15:00 (3:00 PM)
- 15:15 (3:15 PM)
- 15:30 (3:30 PM)
- 15:45 (3:45 PM)
- 16:00 (4:00 PM)
- 16:15 (4:15 PM)
- 16:30 (4:30 PM) **Selected**
- 16:45 (4:45 PM)
- 17:00 (5:00 PM)
- 17:15 (5:15 PM)
- 17:30 (5:30 PM)

Pick date and time

Scroll to bottom

I acknowledge that I have read and understood all the information stated in the above text box and agree to abide by these terms and rules.

Click Select

Select Cancel

Google Cloud

Applying the Voucher Code - Either Option

Exam	Details	Price	Actions
Exam: Google Cloud Certified - Professional Data Engineer (English) Length: 120 minutes	Schedule : Wednesday, 07 September 2022 Start Time : 13:00 (UTC-04:00) Location : [Change] Canadian Systems Inc. 680 Rexdale Blvd, Unit 15 Etobicoke, Ontario M9W 0B5	200.00	Remove

If you are not using a voucher/coupon, please skip and select "Check Out" to proceed.

Coupon/Voucher Code:

[Apply](#)

Subtotal: 200.00
Estimated Tax: 0.00

Total Price: USD 200.00

*Charges are made in USD, currency conversion fees may apply

Paste voucher code here and click Apply

Total Price will be zero

Check Out

[Empty Cart](#) [Add Another Exam](#) [Return Home](#) [Check Out](#)

Google Cloud

Rescheduling

- Login to the webassessor site. Click “My Assessments” to see your current exam registrations. Next to it, there will be a “Reschedule/Cancel”
- There’s a rescheduling/late fee if you update registrations in less than ...
 - 72 hours for onsite exams scheduled at a testing center.
 - 24 hours for online proctored exams taken remotely.

The screenshot shows a user interface for managing scheduled exams. At the top, there are navigation links: Receipts, Register For An Exam, **My Assessments** (which is highlighted with a red box), and Home. Below this, a section titled "SCHEDULED EXAMS" displays a table of upcoming exams. The table has columns for Exam, Date Scheduled, Exam Details, Date Registered, Launch, and Details. One row is visible, showing:

Exam	Date Scheduled	Exam Details	Date Registered	Launch	Details
Beta: Google Cloud Certified - Professional Cloud Database Engineer	27 May 2022 0930H Asia/Calcutta	Remote Proctored	12 April 2022	?	Reschedule/Cancel

A red arrow points to the "Reschedule/Cancel" link in the Details column of the table.

Google Cloud

<https://support.google.com/cloud-certification/answer/9908049?hl=en>

Just before the Exam

Onsite/Test Center:

- Bring two forms of photo ID with name (spelled correctly).

Online:

- One photo ID



- ✓ Government-Issued Driver License
- ✓ National, State, or Country Identification Card
- ✓ Passport
- ✓ Passport card
- ✓ Military ID
- ✓ Alien Registration Card (Green Card or Permanent Resident Visa)

Google Cloud

In general, just keep ready to IDs.

FAQs

- Can I change from remote proctored to onsite proctored?
 - Yes, contact Kryterion support.
- Can I take the exam in my office?
 - Yes, if it is a quiet place and you won't have people coming and going.
- But my office has glass walls!
 - No - you can't take your test there.
- But I can't get a quiet room at home!
 - Choose onsite (test center) proctored.
- How many attempts are allowed with one voucher?
 - Only one.

FAQs

- What is the passing score?
 - Google doesn't publish this information.
- Will we get a subject based score of how many answers we got right/wrong?
 - No. Only a PASS/FAIL result.
- Can I install the exam software on company machine?
 - Try it.
 - It is not uncommon for companies to install policy software which blocks unauthorized applications to be installed.



Remote Proctored Exam

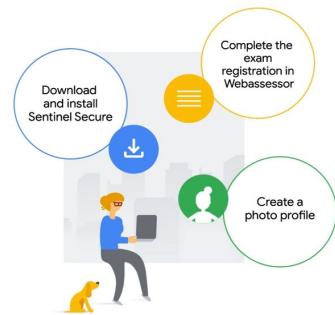
Google Cloud

Source: Google Cloud BigData and Machine Learning Fundamentals v3.0.0

Setting up New Secure Browser

Proprietary + Confidential

- Exam is delivered via a software controlled by kryterion proctors.
- Days before the exam, setup the “New Secure Browser” software on your computer by following steps on the webassessor site.
- Setup your biometrics profile.
- Do not wait till the last moment for this - you will increase your stress/anxiety just before the exam.
- Ref:
kryterion.force.com/support/s/topic/0TO1W000000I5h3WAC/online-proctoring



For Online Proctored Exams

Before you can launch your exam, you must complete the following steps:

Step 1 Install NEW Secure Browser

If you have not installed the [latest](#) secure browser ([as of May 16, 2022](#)) or you are unsure, click the button above, then run and install the program.

Step 2

Create your Biometric Profile - If you have not completed your Biometric Enrollment, a button will appear above. You must complete the Biometric Profile prior to taking an OLP test.

Google Cloud

[https://kryterion.force.com/support/s/topic/0TO1W000000I5h3WAC/online-proctoring?
language=en_US](https://kryterion.force.com/support/s/topic/0TO1W000000I5h3WAC/online-proctoring?language=en_US)

The “Install New Secure Browser” button might not be enabled until you enroll for your first exam.

Check Connectivity, Mic, Cam



If your computer does not have mic, webcam, or if your network connectivity is bad, or if your company does not allow you to install software, choose to take the exam in a test center (i.e. onsite proctored).

<https://www.kryterion.com/systemcheck>

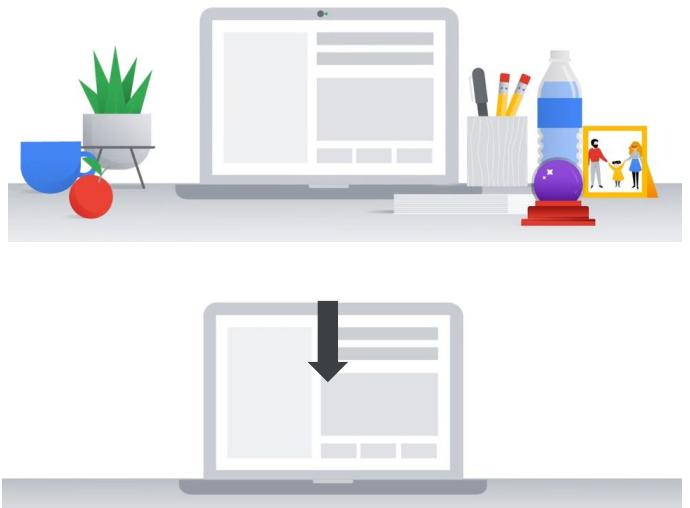
Google Cloud

<https://www.youtube.com/watch?v=8bc3jd9Z5Rw&list=PLBogxgQVM9s9ByaiNCqjnPuiKvb8fgRu&index=4>

We recommend that you use a personal computer and network, as office devices might have administrative restrictions that prohibit the installation and use of the required software, or might block the use of a webcam.

Just before the Exam

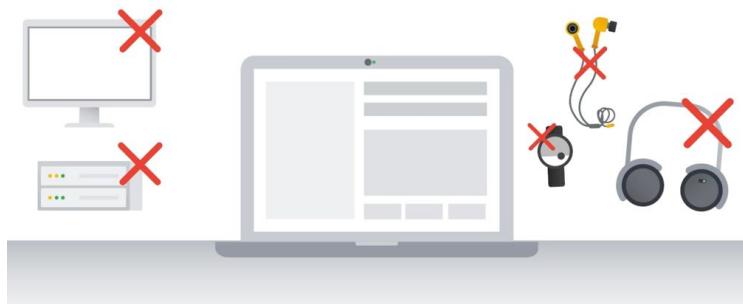
- For remote, instruct your family that you need the room exclusively.
 - They cannot walk in, offer you food, ask you anything, etc.
- At home, clear the table of any electronics, books, watches, mobiles, pen, paper, etc.
- Your face and the room needs to be well lit.



Google Cloud

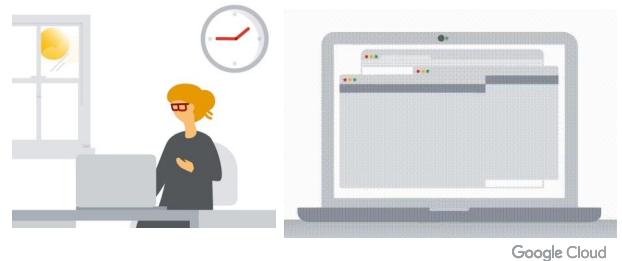
Just before the Exam

- You will have to move your computer or webcam around. So, make sure those are not bolted down. (A laptop with a built-in camera is fine.)
- No external monitor, USBs, devices, etc.
- Don't wear earphones, bluetooth headsets, smart watches, etc.
 - Don't need a watch as there will be a timer on screen.



Starting the Exam

- Close all windows except browser.
- Login to the webassessor site.
- Launch button becomes enabled about 10 or 15 minutes before the exam.
- Once the process launches, follow the instructions ...
 - Agree to Terms and Conditions, enable camera and microphone if not already, take photo of your face, etc.
- Proctor will come on in a while. Again follow instructions.



Starting the Exam

- When your Proctor asks you to ... Show your government ID to the camera.
- Lift your laptop and turn it slowly around the room showing walls, ceiling, floor, area under desk, chair, etc.
- With a reflective surface or a mobile phone's front facing camera, show a reflection of your computer screen, keyboard etc.
 - Once done, keep the mobile phone, IDs, etc. far away and show the proctor where you have kept it.



Google Cloud

Exam Discipline

- Do not read the question out loud (or even whisper it loud).
- Do not look away from the screen too often or for too long.
- Do not leave your desk or move away from the camera.
- No food or drink



<https://www.youtube.com/watch?v=8bc3jd9Z5Rw>

Starting the Exam

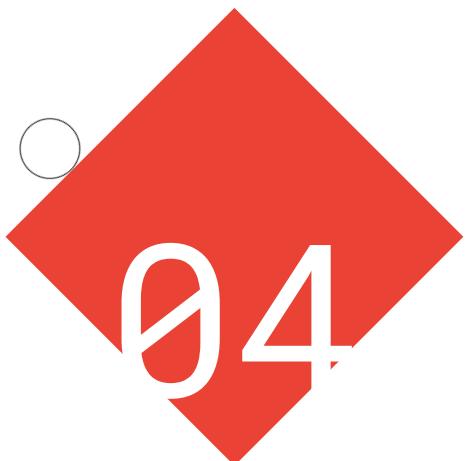
- Arrive early.
- Show your photo IDs at the reception.
- Show your exam registration email.
- Keep bags, mobiles, watch, headphones, items in your pocket in a locker.
- A person will walk you to a computer where they will start your exam for you.

What if there is a network issue?

- If the network goes down for a short while, contact kryterion support. They will typically allow you to continue from the point you last stopped.
- If the network issue is for a longer period of time, they might cancel the current exam and ask you to choose another date to start the exam all over again.
- It should be the same experience if:
 - Your microphone stops working.
 - Your camera stops working.
 - You step away from the computer, look like you are referring to something away from the computer screen, seem like you are talking to someone, etc.
- <https://kryterion.force.com/support/s/contactsupport>
- support@kryteriononline.com

Google Cloud

<https://kryterion.force.com/support/s/contactsupport>
support@kryteriononline.com



Exam Guide

Google Cloud

Source: Google Cloud BigData and Machine Learning Fundamentals v3.0.0



Professional Security Engineer

Proprietary + Confidential

The Google Cloud Certified

Professional Security Engineer exam assesses your ability to:

- Configure access within a cloud solution environment
- Configure network security
- Ensure data protection
- Manage operations within a cloud solution environment
- Ensure compliance

<https://cloud.google.com/certification/cloud-security-engineer>

Google Cloud

Professional Data Engineer Certification web page

<https://cloud.google.com/certification/data-engineer>

Bring up the exam guide and spend a few minutes going through the 4 exam objectives.

Show the bullet points under each section

<https://cloud.google.com/certification/guides/data-engineer>



Hands On Study Aids And Resources

Google Cloud

Source: Google Cloud BigData and Machine Learning Fundamentals v3.0.0

Learning Path - Partner Certification Academy Website

<https://rsvp.withgoogle.com/events/partner-learning/google-cloud-certifications#content>

The screenshot shows the 'Google Cloud Certifications' landing page. At the top, there's a video player with the title 'Google Cloud Certification - Val...' and a play button. Below the video, there's a section titled 'Learning Options' with the following details:

- Partner Certification Academy**: Study on demand + Attend live classes. It features an icon of a book, a speech bubble, and a target.
- Partner Certification Kickstart**: Study on demand - structured. It features an icon of a laptop and a smartphone.
- Certification Learning Path**: Study on demand - at your own pace. It features an icon of books and a target.

Google Cloud

<https://rsvp.withgoogle.com/events/partner-learning/google-cloud-certifications>

Exam Preparation: On-demand Courses (Optional)

- Google's partners receive free access to [Google Cloud Skills Boost for Partners](#)
 - Contains on-demand course content
 - Hands-on labs

The screenshot shows a web browser window for 'partner.cloudskillsboost.google'. The navigation bar includes 'Home' (which is selected), 'Catalog', 'Profile', and 'Subscriptions'. The main content area is titled 'Welcome to Google Cloud Skills Boost for Partners!' and features a sub-section 'In Progress' with three cards:

- Monitor and Log with Google Cloud Operations Suite** (Quest)
- Google Cloud's Operations Suite** (Quest)
- Implement DevOps in Google Cloud** (Quest)

A small illustration of a person standing next to a bar chart is visible in the background.

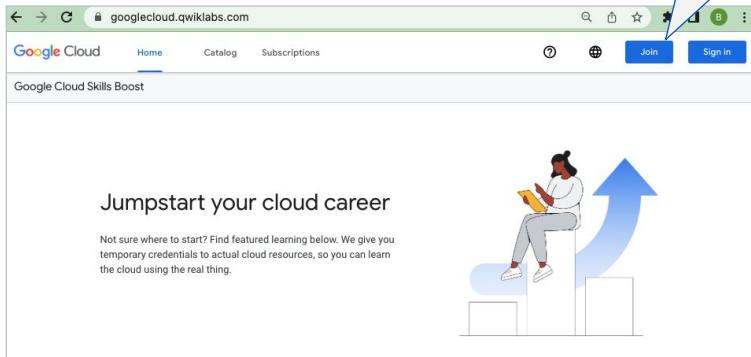
Google Cloud

Google Cloud Skills Boost for Partners: <https://partner.cloudskillsboost.google/>

Creating an account

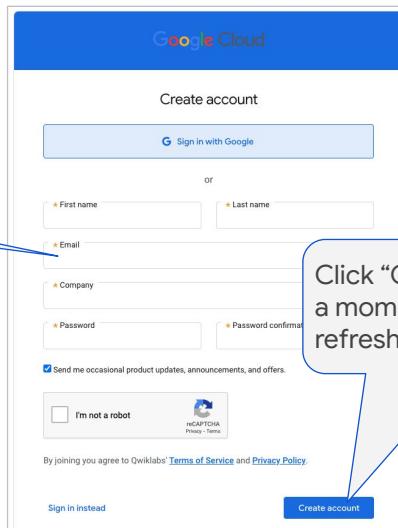
partner.cloudskillsboost.com

Click “Join” to create
a new account



Google Cloud

Creating an account



The screenshot shows the 'Create account' page for Google Cloud. At the top, there's a blue header bar with the Google Cloud logo. Below it, the title 'Create account' is centered. There are two main sign-in options: a light blue button labeled 'Sign in with Google' and a 'or' link. Below these are four text input fields: 'First name' (with a placeholder 'John'), 'Last name' (placeholder 'Doe'), 'Email' (placeholder 'john.doe@example.com'), and 'Company' (placeholder 'Qwiklabs'). Underneath the email field are 'Password' and 'Password confirmation' fields. A checked checkbox below them says 'Send me occasional product updates, announcements, and offers.' At the bottom left is a 'Sign in instead' link, and at the bottom right is a large blue 'Create account' button. A small note at the bottom states: 'By joining you agree to Qwiklabs' [Terms of Service](#) and [Privacy Policy](#).

Important: Enter your work email address

Click "Create account". Wait a moment and the screen will refresh.

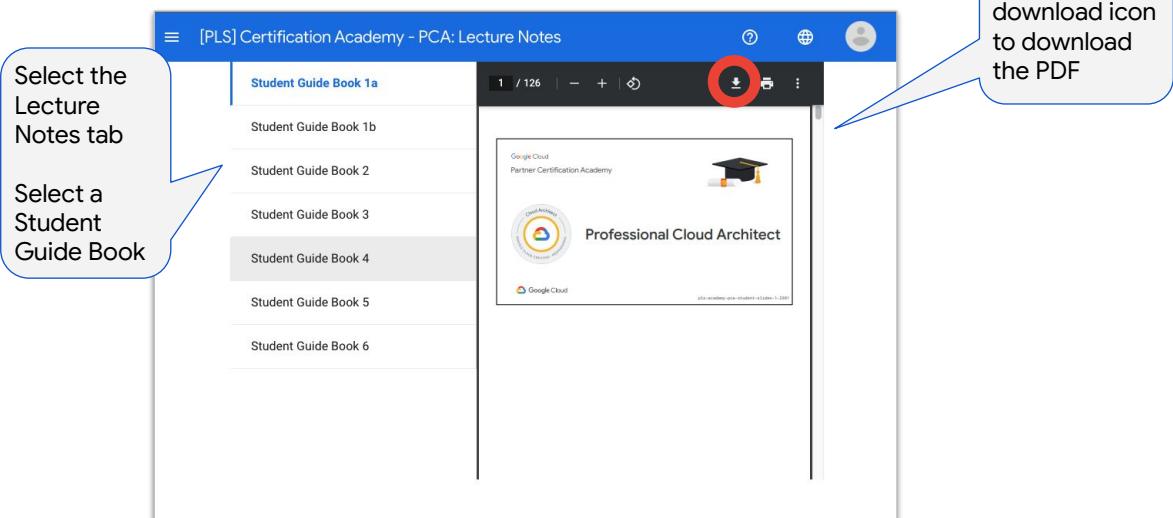
Google Cloud

Accessing PDF copies of workshop slide decks

The screenshot shows the Google Cloud Learning Platform interface. At the top, there's a navigation bar with Home, Catalog, Profile, and Subscriptions. A blue callout box points to the Home tab. Below the navigation, a banner says "Welcome! You have signed up successfully". On the left, there's a sidebar with a purple box containing the text "Click the purple box" and "In Progress". It also shows a scheduled course thumbnail for "[PLS] Certification Academy - PCA" on "Feb 9, 2023 10:00AM EST USA". The main content area displays the course details for "[PLS] Certification Academy - PCA". It includes tabs for "Labs" (which is selected) and "Lecture Notes". A blue arrow points from the "Labs" tab to a callout box that says "Shown two tabs:" followed by a bulleted list: "• Labs" and "• Lecture Notes". The right side of the screen shows the "Overview" section, which describes the workshop as a multi-session Partner Learning Services workshop to help students prepare for the Professional Cloud Architect certification. It lists the date (Thursday, February 9, 2023 9:00AM CST – Thursday, March 23, 2023 9:00AM CDT), location (USA), instructor (Bobbie Townsend, Manjeet Dadyala), and level (Intermediate). At the bottom right of the main content area, it says "Take class evaluation: Google Cloud Training Survey".

Google Cloud

Downloading the lecture notes



Google Cloud

Exam Preparation: On-demand Courses

- Google's partners receive free access to [Google Cloud Skills Boost for Partners](https://partner.cloudskillsboost.google/)
 - Contains on-demand course content
 - Hands-on labs

The screenshot shows the 'partner.cloudskillsboost.google' website. At the top, there is a navigation bar with links for Home, Catalog, Profile, and Subscriptions. Below the navigation, the page title is 'Google Cloud Skills Boost for Partners!'. A welcome message says, 'Welcome to Google Cloud Skills Boost for Partners! Choose your path, build your skills, and validate your knowledge. All in one place. Take advantage of some of the new features, including completion badges, improved course information, and searchability.' To the right of the message is an illustration of a person standing next to a large bar chart. Below this section is a 'In Progress' heading with three cards, each labeled 'Quest':

- Monitor and Log with Google Cloud Operations Suite
- Google Cloud's Operations Suite
- Implement DevOps in Google Cloud

Google Cloud

Google Cloud Skills Boost for Partners: <https://partner.cloudskillsboost.google/>

Professional Data Engineer:

https://partner.cloudskillsboost.google/course_templates/244

Partner Solution Learning Path: Data Lake:

https://partner.cloudskillsboost.google/course_templates/251

Role Based Learning Path: Data/ BI Analyst:

https://partner.cloudskillsboost.google/course_templates/239

Inside Track: Dataflow Advanced:

https://partner.cloudskillsboost.google/course_templates/312

Exam Preparation: On-demand Courses

- Suggested content
 - [Certification Learning Path: Professional Cloud Security Engineer](#)

Google Cloud

Google Cloud Skills Boost for Partners: <https://partner.cloudskillsboost.google/>

Professional Data Engineer:

https://partner.cloudskillsboost.google/course_templates/244

Partner Solution Learning Path: Data Lake:

https://partner.cloudskillsboost.google/course_templates/251

Role Based Learning Path: Data/ BI Analyst:

https://partner.cloudskillsboost.google/course_templates/239

Inside Track: Dataflow Advanced:

https://partner.cloudskillsboost.google/course_templates/312

Automate Interactions with Contact Center AI:

<https://partner.cloudskillsboost.google/quests/127>

Document AI: https://partner.cloudskillsboost.google/course_templates/341

Google Cloud Security Foundations Guide

- [Security Foundations Guide](#) provides an opinionated view of Google Cloud security best practices, organized to allow users to adopt or adapt them
 - Includes the core concepts of BeyondCorp Enterprise, the Resource Hierarchy, IAM best practices and much more



Google Cloud

<https://services.google.com/fh/files/misc/google-cloud-security-foundations-guide.pdf>



Partner Advantage

Getting started on Partner Advantage: [Partner Advantage Support](#)

For partners: [Join Partner Advantage](#)

For individuals: [Get help accessing Partner Advantage](#)

Google Cloud

The getting started link:

<https://support.google.com/googlecloud/topic/9198654#zippy=>

Note the top section, “**Getting Started & User Guides**” and two key documents → Direct Partners to this if they need to enroll into Partner Advantage

1. Logging in to the Partner Advantage Portal - Quick Reference Guide
2. Enrolling in the Partner Advantage Program - Quick Reference Guide

Focus from this point on:

Some context on enrolling in PA:

Access to Partner Portal is given in 2 ways

- Partner Admin Led: Partner Administrator at Partner Company can set up users
- User Led: User can go through Self Registration
 - https://www.partneradvantage.goog/GCPPRM/s/partneradvantageportallogin?language=en_US
 - Or directly to the User Registration Form,
https://www.partneradvantage.goog/GCPPRM/s/partnerselfregistration?language=en_US

Please Note

- After a user self-registers, they receive an email that essentially states:

- "Hi {Partner Name}, you are one step away from joining the Google Cloud Partner Advantage Community. Please click to continue with the user registration process. See you in the cloud, The Partner Advantage Team
- Once registered, they can access limited content until their **Partner Administrator approves the user**
- Their Partner Administrator also receive an email notifying them that a member of their organization has registered themselves on their organization's Google Cloud Partner Advantage account.
 - It also states that this user has limited access to the portal
 - They are provided instructions on how to review and provision the appropriate access for the user that has registered
- Once their admin approves the user, they receive an email that states:
 - Hi {User Name}, Your Partner Administrator has updated your access to the Google Cloud Partner Advantage portal. You have been granted edit access to additional account information on the portal on behalf of your organization to help build your business. For additional access needs, please work with your Partner Administrator. See you in the cloud, The Partner Advantage Team

The net takeaway is, on the Support Page (the first link on this slide) [Google Cloud Partner Advantage Support](#), there's a section "**Issue accessing Partner Advantage Portal? Click here for troubleshooting steps**"

- The source of their issue can be related to the different items shown
- Additionally, there's a Partner Administrator / Partner Adminstrator Team at their partner organization that has to approve their access.. Until that step is completed, they will have access issues/limitation. They will need to identify who this person or team is at their organization



Partner Advantage

The following documents (require Partner Advantage logon) complement/extend the certification self-study material presented on partner.cloudskillsboost.google:

[Cloud Foundations: Access Management](#)

[Cloud Foundations: Identity Management](#)

[Cloud Foundations: Security](#)

[Cloud Foundations: Networking](#)

Some of the following slides are taken from these presentations - you can access these slides (and more!) by accessing the above documents. **Highly recommended!**

Google Cloud

The getting started link:

<https://support.google.com/googlecloud/topic/9198654#zippy=>

Note the top section, “**Getting Started & User Guides**” and two key documents → Direct Partners to this if they need to enroll into Partner Advantage

1. Logging in to the Partner Advantage Portal - Quick Reference Guide
2. Enrolling in the Partner Advantage Program - Quick Reference Guide

Focus from this point on:

Some context on enrolling in PA:

Access to Partner Portal is given in 2 ways

- Partner Admin Led: Partner Administrator at Partner Company can set up users
- User Led: User can go through Self Registration
 - https://www.partneradvantage.goog/GCPPRM/s/partneradvantageportallogin?language=en_US
 - Or directly to the User Registration Form,
https://www.partneradvantage.goog/GCPPRM/s/partnerselfregistration?language=en_US

Please Note

- After a user self-registers, they receive an email that essentially states:

- "Hi {Partner Name}, you are one step away from joining the Google Cloud Partner Advantage Community. Please click to continue with the user registration process. See you in the cloud, The Partner Advantage Team
- Once registered, they can access limited content until their **Partner Administrator approves the user**
- Their Partner Administrator also receive an email notifying them that a member of their organization has registered themselves on their organization's Google Cloud Partner Advantage account.
 - It also states that this user has limited access to the portal
 - They are provided instructions on how to review and provision the appropriate access for the user that has registered
- Once their admin approves the user, they receive an email that states:
 - Hi {User Name}, Your Partner Administrator has updated your access to the Google Cloud Partner Advantage portal. You have been granted edit access to additional account information on the portal on behalf of your organization to help build your business. For additional access needs, please work with your Partner Administrator. See you in the cloud, The Partner Advantage Team

The net takeaway is, on the Support Page (the first link on this slide) [Google Cloud Partner Advantage Support](#), there's a section "**Issue accessing Partner Advantage Portal? Click here for troubleshooting steps**"

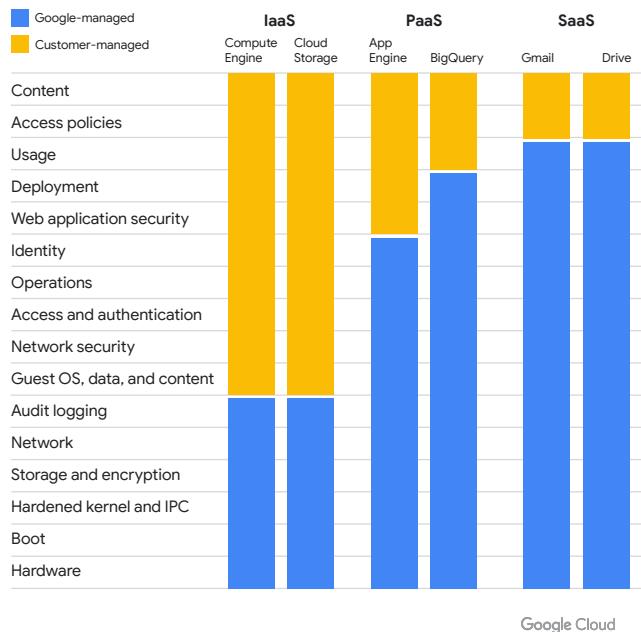
- The source of their issue can be related to the different items shown
- Additionally, there's a Partner Administrator / Partner Adminstrator Team at their partner organization that has to approve their access.. Until that step is completed, they will have access issues/limitation. They will need to identify who this person or team is at their organization

Cloud security is a shared responsibility

Google is responsible for securing the infrastructure

You are responsible for securing your data

We help you with best practices, templates, products, and solutions.



Google Cloud

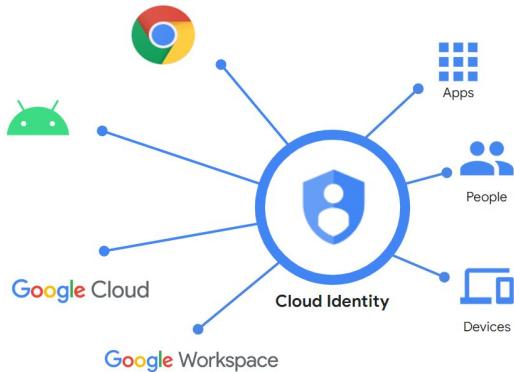
Key points:

- The amount of customizations and controls that the customers control are different between different services. The more configuration features can be tuned for a service, the more attention customers need to put into security.
- For IaaS there many areas of the infrastructure that need to be designed by customers in a secure way, from firewalls to OS updates. There are automations provided by Google Cloud to make them easier, but still these activities are not transparent to the users.
- The other end of the spectrum is SaaS like Gmail. Administrators do not need to configure much, just enable additional security features, where necessary (like MFA).

Probing questions (optional):

- None

What is Cloud Identity?



- Cloud Identity is an Identity as a Service (IDaaS) solution that **allows you to centrally manage users and groups** who can access Google Cloud and Google Workspace resources
- It is the same identity service that powers Google Workspace and can also be used as IdP for third-party applications (supports SAML and LDAP applications)

Google Cloud

Users and groups



Users and groups created in Cloud Identity are the **Google Identities** that can be assigned **IAM roles** in the Google Cloud console.

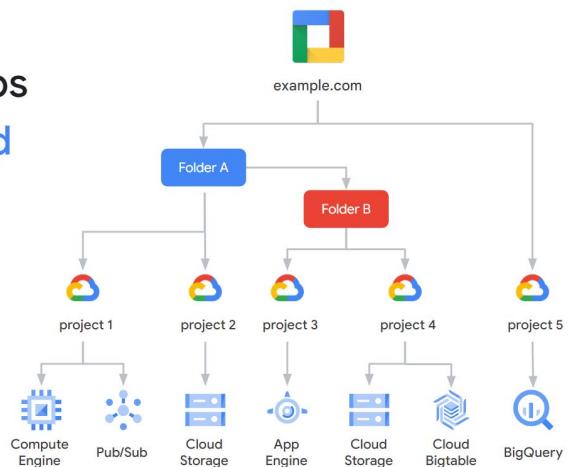
The **Cloud Identity roles** only manage aspects of Cloud Identity such as user/group management, and are different from **Google Cloud roles**, which manage permissions to cloud resources.

Google Cloud

Organization hierarchy helps organize access control and policy for resources

Folders provide for flexible hierarchy of Projects

- Organization policy and access control can be bound at any level and flow downwards

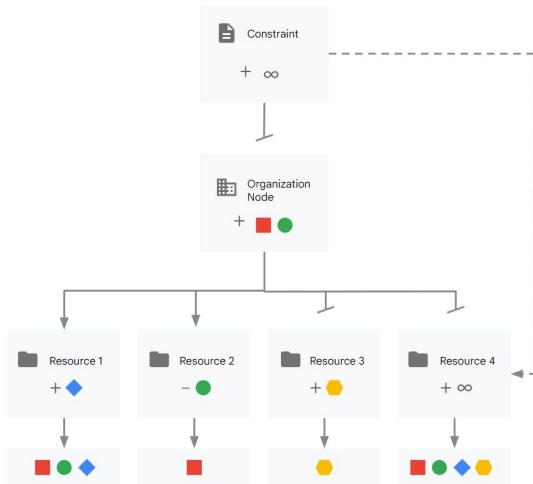


Google Cloud

Organization policy helps restrict to authorized usage

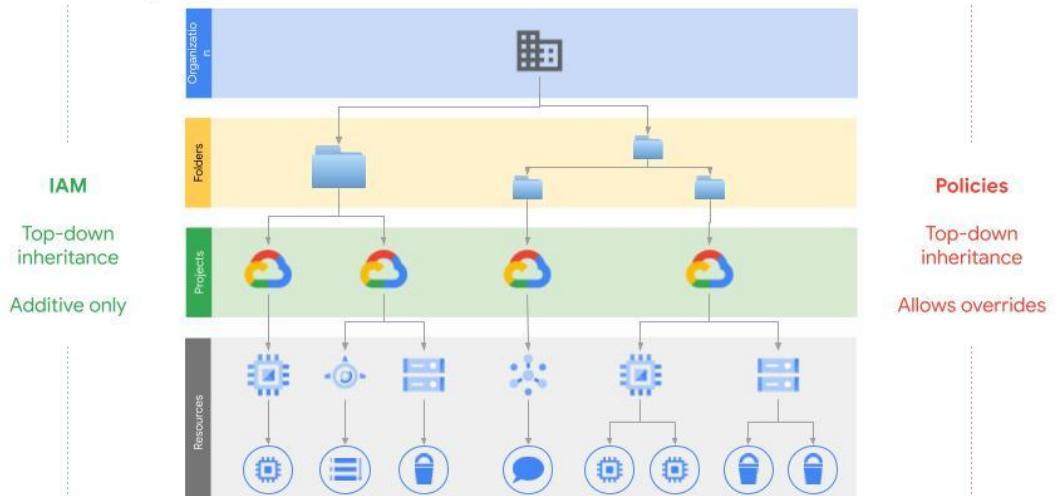
Organization policies composed of a set of organizational policy constraints can be bound at multiple levels of hierarchy

- Large number of optional constraint types across various Google cloud services
- Policies may be configured for inheritance down hierarchy or not
- With inheritance, ancestor policy constraints can be overridden or merged



Google Cloud

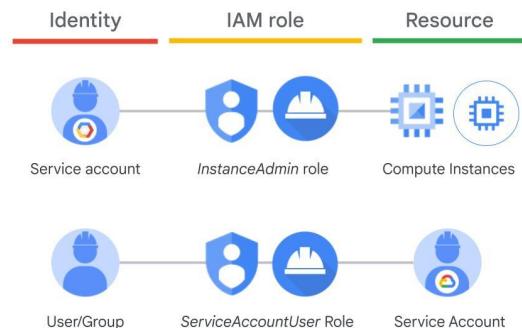
Hierarchy inheritance



Service accounts provide service access to Google Cloud

Service accounts used as service identities for workloads running in or outside Google Cloud

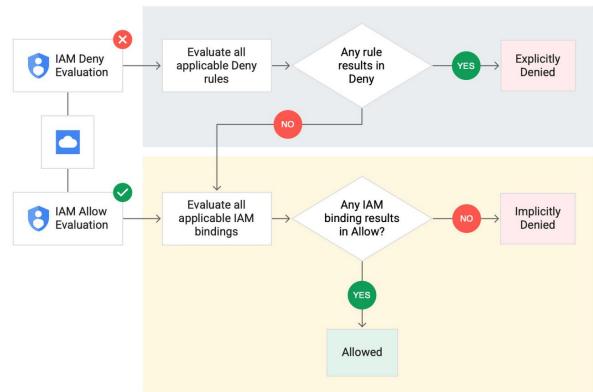
- Given access to resources like user and group identities
- Authenticate with private keys
- Leverage Google key management for most secure usage



Google Cloud

IAM Deny Policies

Identity and Access Management (IAM) deny policies let you set guardrails on access to Google Cloud resources. With deny policies, you can define *deny rules* that prevent certain principals from using certain permissions, regardless of the roles they're granted.



Note: Only a subset of roles can be denied. Refer to the documentation.

<https://cloud.google.com/iam/docs/deny-overview>

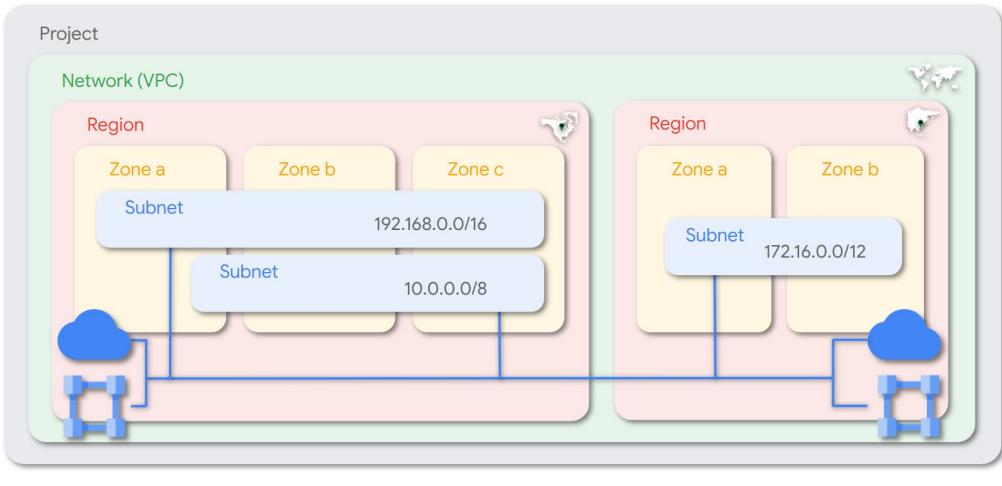
Google Cloud

<https://cloud.google.com/release-notes>

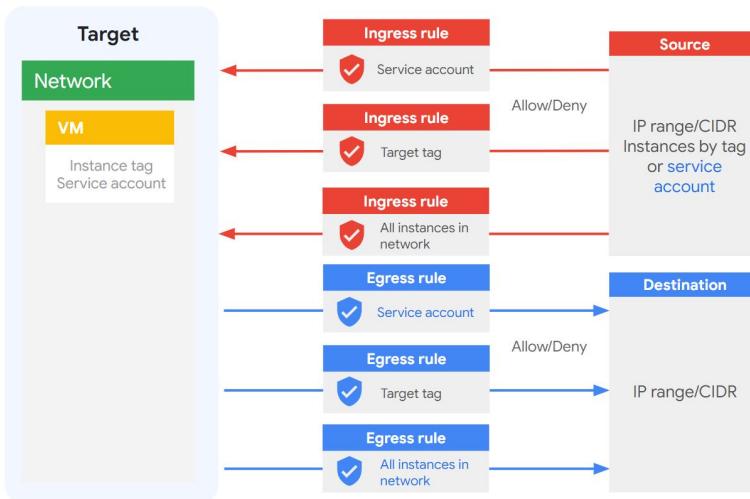
<https://cloud.google.com/iam/docs/deny-overview>

<https://cloud.google.com/blog/products/identity-security/introducing-iam-deny>

Network concepts



VPC firewall



VPC firewall

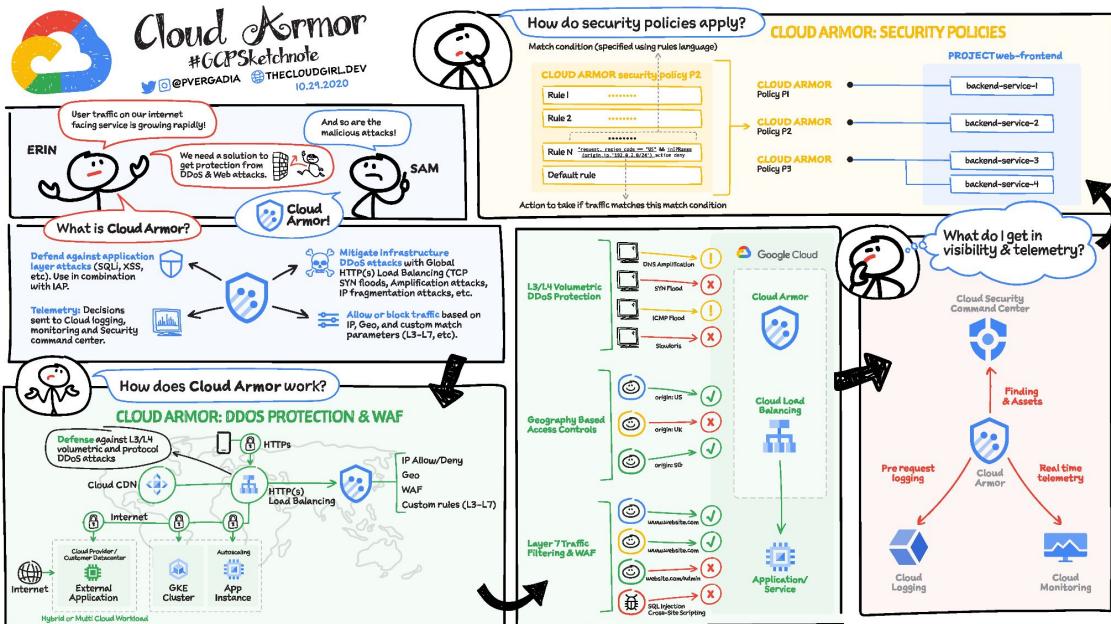
- **Stateful** with connection tracking
- **Distributed**: enforced on underlying host

Controls paths

- VM <-> VM
- VM <-> Internet
- VM <-> On-premises

Implied rules

- Ingress deny
- Egress allow



<https://thecloudgirl.dev/CloudArmor.html>

Hybrid connectivity options: Connecting your existing networks to Google



Public Internet (IPSEC VPN)

- Fastest way to connect to the cloud or between clouds
- Leverages existing internet network connectivity
- Supports high availability and aggregated bandwidth with **1.5 to 3 Gbps per tunnel**
- Static/dynamic (BGP) based VPN



Cloud Interconnect

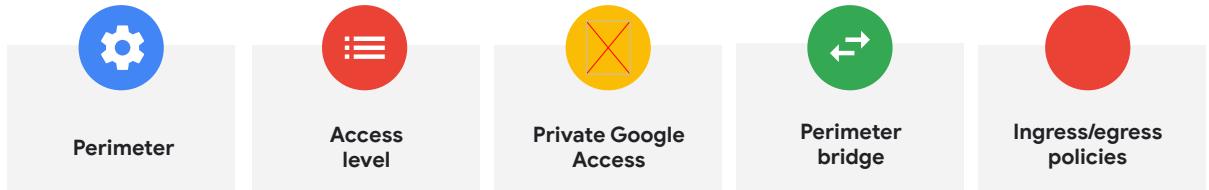
- Enterprise-grade, private connectivity to Google Cloud
- Provisioned as a dedicated link to a Google PoP or via a partner
- Dedicated Interconnect: Highest bandwidth with **10 Gbps and 100 Gbps links**
- Partner Interconnect offers more flexible subscriptions (**50 Mbps to 10 Gbps**)



Peering

- Access Google Workspace and Google services, as well as Google Cloud with reduced egress rates
- Utilizes existing BGP route selection and internet routing
- Greater control of peering facilities
- Direct or carrier

The main building blocks of VPC Service Control



Supported Google APIs

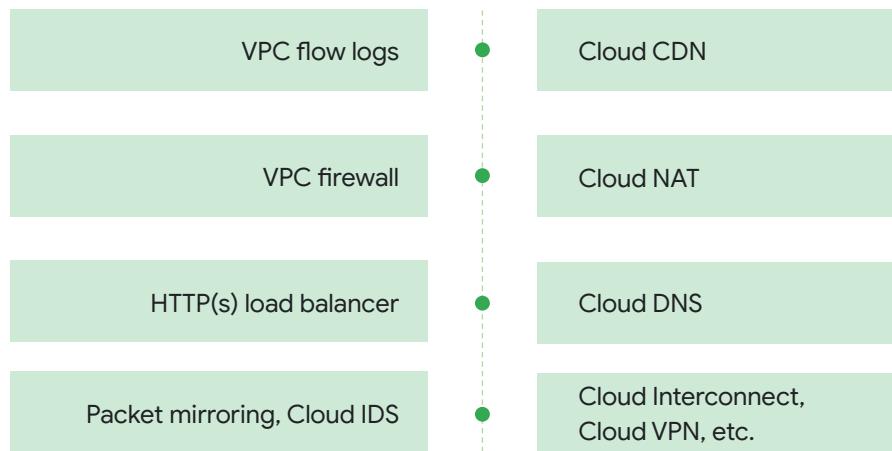
Most used: BigQuery, Cloud Storage, BigTable,

Pub/Sub

Unsupported services: AppEngine, etc.

Google Cloud

Network logging



Identity-aware proxy

Central enforcement

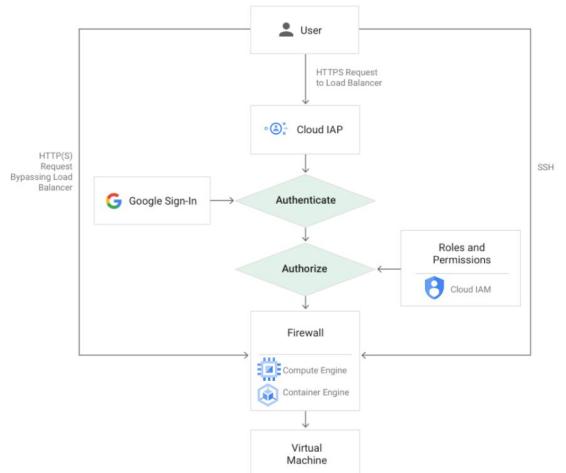
- Single point of control for managing user access
- Security team can define and enforce policy

Access control

- Control access by user identity
- Apply policy by group membership
- Supports 2FA Security Keys

Deployment

- Little to no change to applications
- No need to implement own authentication for each application
- Integrated with HTTP(s) Load Balancer



Google Cloud

Security Command Center



Assets Browser

- Explore the assets in your organization
- Highlight changes



Prevent threats

- Security Health Analytics (SHA)
- Web Security Scanner



Detect threats

- Event Threat Detection (ETD)
- Container Threat Detection (KTD) beta – Premium only

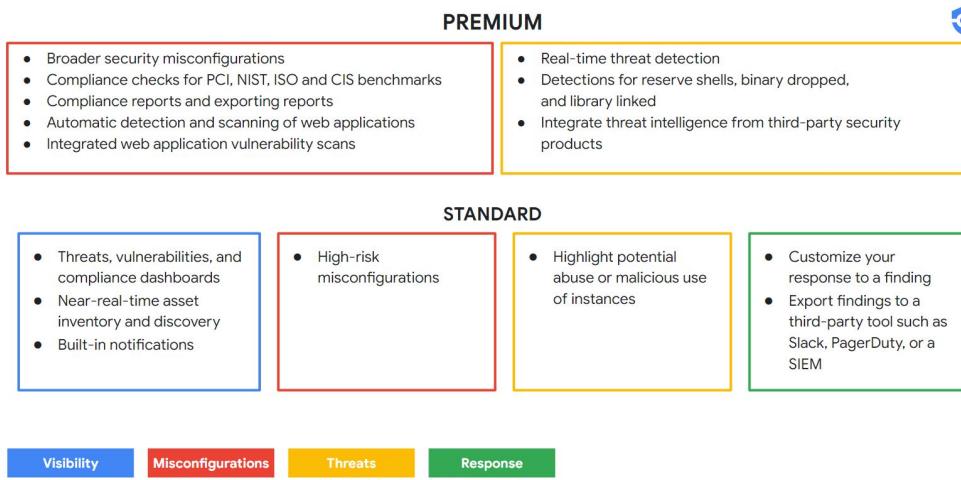


Respond to threats

- Change configurations
- Investigate an alert
- Create an incident
- Add to allow/deny list
- Output to a SIEM

Google Cloud

The Security Command Center Standard and Premium tiers



Google Cloud

Data Loss Prevention (DLP)

- API to help classify and redact sensitive data
 - Helps customers meet their compliance obligations
 - Works with image or text data
- Data can be in Google Cloud, other clouds, or on-premises
 - Built-in support for BigQuery, Datastore, and Cloud Storage
- 150-plus built-in detectors for common sensitive data items
 - E.g., credit card numbers
- Detectors can be customized to classify/redact new data items
 - E.g., social security numbers in a particular country's format

Google Cloud

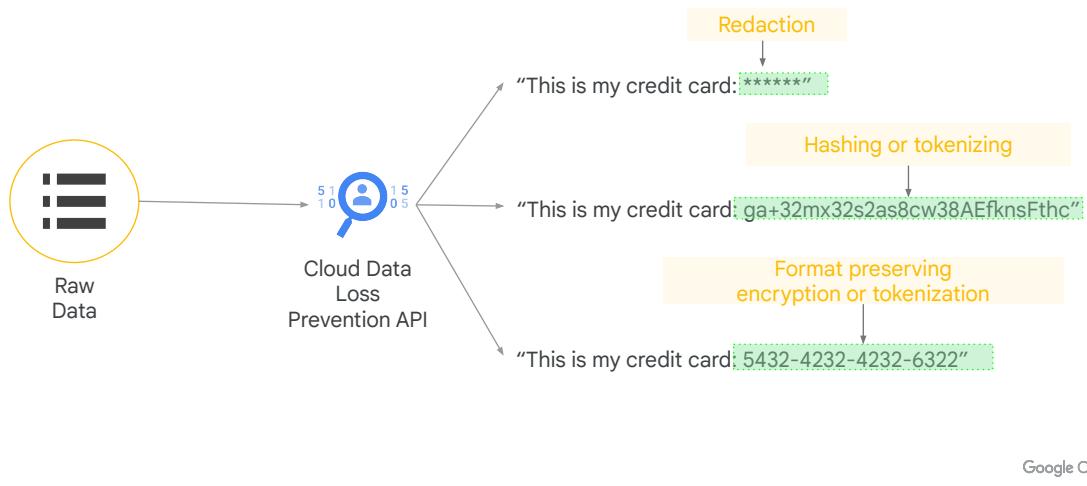
DLP is an API that can be used to classify and redact PII information. Many different security compliance regulations require the safeguarding of PII data. DLP can work with both image or text data to classify and redact information.

DLP is not just limited to Google Cloud. It can also be used with other cloud providers as well as on-premise. Built-in support is provided for BigQuery, Datastore, and Cloud Storage.

DLP has over 90 built-in detectors that can scrub your data for common sensitive data items. Detectors can also be modified for your needs.

Cloud Data Loss Prevention (Cloud DLP)

Provides programmatic access to a powerful detection engine for PII Data



Purpose of the slide:

- Introduce Cloud DLP

Key points:

- Cloud DLP helps by **detecting sensitive data** based on an [extensive list of sensitive data types](#)
- It helps by **detecting** data, but also hiding it away by **redacting, hashing, or tokenization**, as shown in this slide
- Supported formats are **text** and also **images**
- DLP is a **stateless service**, which means it's not storing your sensitive data
- How it works
 - Use **DLP API** to inspect data stored elsewhere. Supports Cloud Storage, BigQuery, Datastore, plain text. Output is a report of sensitive data found.
 - Use **DLP API** to redact/de-identify data by providing text. Output is redacted data.

Probing questions (optional):

- None

Cloud DLP: Data masking (de-identification)

ID	Job Title	Phone	Comments
359740	Senior Engineer	307-964-0673	Please email them at jane@imadethisup.com
981587	VP, Engineer	713-910-6787	none
394091	Lawyer	692-398-4146	Updated phone to: 692-398-4146
986941	Senior Ops Manager	294-967-5508	none
490456	Junior Ops Manager	791-954-3281	Tried to verify account with their SSN 222-44-5555

Easy to use transformations

Redaction, masking, pseudonymization, tokenization, format-preserving encryption, date-shifting, and more.

Handle structured and unstructured data

Apply transforms to an entire column or based on classified data in a “blob of text” or both.

Mask images

Generate redacted images based on findings or remove all text.

Google Cloud

Purpose of the slide:

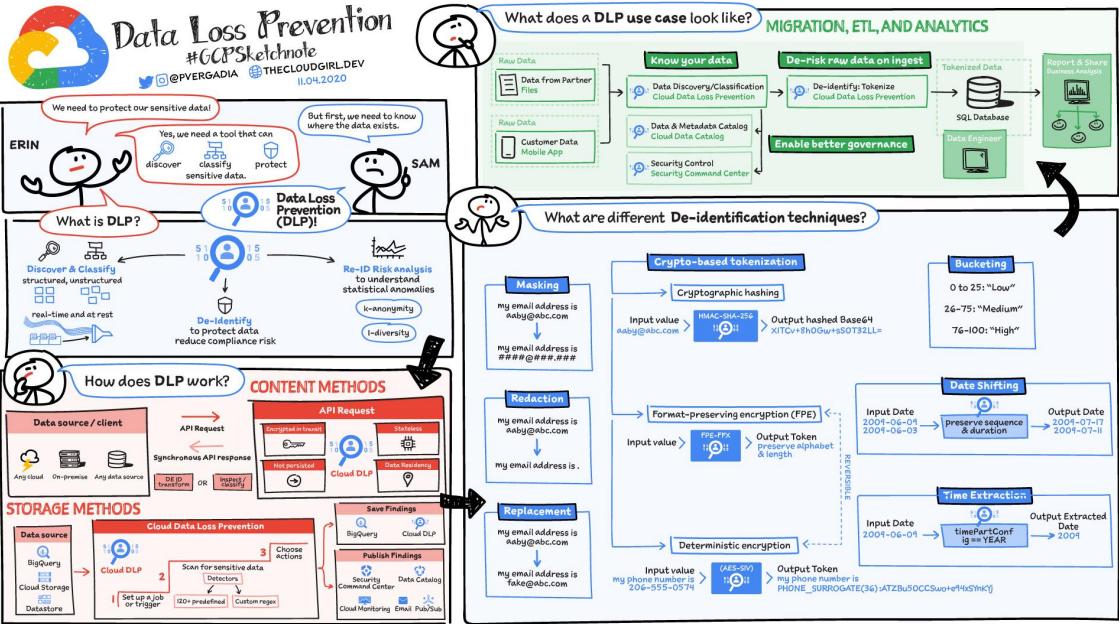
- Show an example of using DLP API to redact data

Key points:

- As said, DLP API can scan **images, text, and also databases**
- We can see an **example** how DLP **finds and redacts sensitive data** in a database

Probing questions (optional):

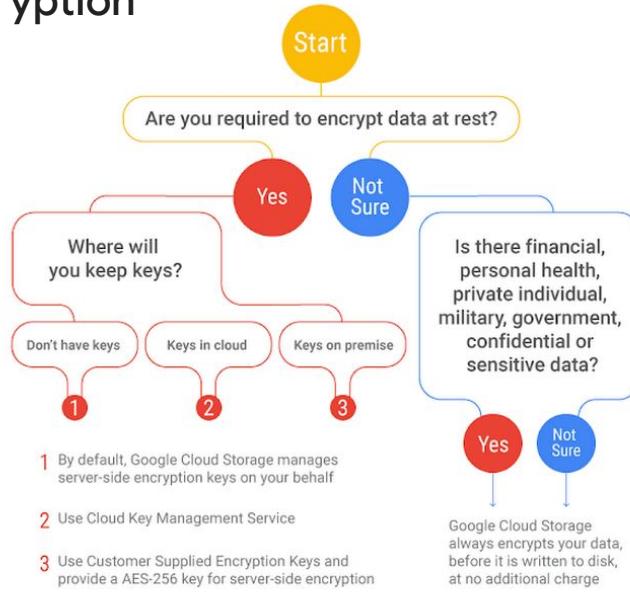
- None



Google Cloud

<https://thecloudgirl.dev/dlp.html>

Data Encryption

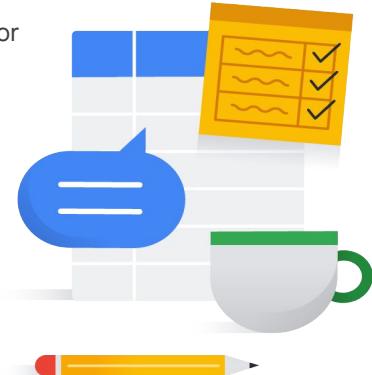


Google Cloud

<https://cloud.google.com/blog/products/gcp/managing-encryption-keys-in-the-cloud-introducing-google-cloud-key-management-service/?m=1>

Program issues or concerns?

- Problems with **accessing** Cloud Skills Boost for Partners, and/or problems with a lab (locked out, etc.)
 - cloud-partner-training@google.com
- Problems with accessing Partner Advantage
 - <https://support.google.com/googlecloud/topic/9198654>



Google Cloud

- Problems with accessing **Cloud Skills Boost for Partners**
 - partner-training@google.com
- Problems with a **lab** (locked out, etc.)
 - support@qwiklab.com
- Problems with accessing **Partner Advantage**
 - <https://support.google.com/googlecloud/topic/9198654>



General test taking best practices

Google Cloud

Source: Google Cloud BigData and Machine Learning Fundamentals v3.0.0

Evaluating Options

These questions review techniques to use while evaluating questions and answers during the exam



Google Cloud

Question: You have a large number of files in a directory to copy to Cloud Storage. You want to parallelize it. Which command should you use?

- A. gcloud -m cp -r dir gs://company-name/bu/project/my-bucket
- B. gcloud -p cp -r dir gs://company-name/bu/project/my-bucket
- C. gsutil -m cp -r dir gs://company-name/bu/project/my-bucket
- D. gsutil -p cp -r dir gs://company-name/bu/project/my-bucket

Question: You have a large number of files in a directory to copy to Cloud Storage. You want to parallelize it. Which command should you use?

- A. gcloud -m cp -r dir gs://company-name/bu/project/my-bucket
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- C. gsutil -m cp -r dir gs://company-name/bu/project/my-bucket
- D. gsutil -p cp -r dir gs://company-name/bu/project/my-bucket

*Recognize that some answers have
duplicate segments.*

Question: You have a large number of files in a directory to copy to Cloud Storage. You want to parallelize it. Which command should you use?

- A. gcloud -m cp -r dir gs://company-name/bu/project/my-bucket
- B. gcloud -p cp -r dir gs://company-name/bu/project/my-bucket
- C. gsutil -m cp -r dir gs://company-name/bu/project/my-bucket
- D. gsutil -p cp -r dir gs://company-name/bu/project/my-bucket

Ignore those segments entirely.

Question: You have a large number of files in a directory to copy to Cloud Storage. You want to parallelize it. Which command should you use?

- A. gcloud -m cp -r dir gs://company-name/bu/project/my-bucket
- B. gcloud -p cp -r dir gs://company-name/bu/project/my-bucket
- C. gsutil -m cp -r dir gs://company-name/bu/project/my-bucket
- D. gsutil -p cp -r dir gs://company-name/bu/project/my-bucket

Look for groups of segments.

Question: You have a large number of files in a directory to copy to Cloud Storage. You want to parallelize it. Which command should you use?

- A. gcloud -m cp -r dir gs://company-name/bu/project/my-bucket
- B. gcloud -p cp -r dir gs://company-name/bu/project/my-bucket
- C. gsutil -m cp -r dir gs://company-name/bu/project/my-bucket
- D. gsutil -p cp -r dir gs://company-name/bu/project/my-bucket

Eliminate the incorrect group.

Question: You have a large number of files in a directory to copy to Cloud Storage. You want to parallelize it. Which command should you use?

- A. gcloud -p cp -r dir gs://company-name/bu/project/my-bucket
- B. gcloud -p cp -r dir gs://company-name/bu/project/my-bucket
- C. gsutil -m cp -r dir gs://company-name/bu/project/my-bucket**
- D. gsutil -p cp -r dir gs://company-name/bu/project/my-bucket

Question: Your company wants to deploy several microservices to help their system handle elastic loads. Each microservice uses a different version of software libraries. You want to enable the developers to keep their development environment in sync with the various production services. Which technology should you choose?

Google Cloud

Taken from CDL week 4 - Thanks

Question: Your company wants to deploy several microservices to help their system handle elastic loads. Each microservice uses a different version of software libraries. You want to enable the developers to keep their development environment in sync with the various production services. Which technology should you choose?

*Start visualizing what's going on
What options comes to mind first?*

*Elastic Loads = autoscaling
Various production services = portability*

Google Cloud

Taken from CDL week 4 - Thanks

Question: Your company wants to deploy several microservices to help their system handle elastic loads. Each microservice uses a different version of software libraries. You want to enable their developers to keep their development environment in sync with the various production services. Which technology should you choose?

Think about these before you answer the question:

If you had to pick a compute option for microservices workloads, what would it be?

What comes to mind first?

Google Cloud

Modified version of this PCA official sample question:

Your company wants to deploy several microservices to help their system handle elastic loads. Each microservice uses a different version of software libraries. You want to enable their developers to keep their development environment in sync with the various production services. Which technology should you choose?

- A. RPM/DEB
- B. Containers
- C. Chef/Puppet
- D. Virtual machines

Question: Your company wants to deploy several microservices to help their system handle elastic loads. Each microservice uses a different version of software libraries. You want to enable their developers to keep their development environment in sync with the various production services. Which technology should you choose?

- A. Bare Metal Machines
- B. Containers
- C. Individual Laptops
- D. Virtual machines

- 1) *Look for your solution***
- 2) *Eliminate obvious wrong options***

Question: Your company wants to deploy several microservices to help their system handle elastic loads. Each microservice uses a different version of software libraries. You want to enable their developers to keep their development environment in sync with the various production services. Which technology should you choose?

- A. Bare Metal Machines
- B. Containers
- C. Individual Laptops
- D. Virtual machines

- 1) *Look for your solution*
- 2) *Eliminate obvious wrong options*

Ridiculous option.

Question: Your company wants to deploy several microservices to help their system handle elastic loads. Each microservice uses a different version of software libraries. You want to enable their developers to keep their development environment in sync with the various production services. Which technology should you choose?

A. Bare Metal Machines

B. Containers

C. Individual Laptops

A fringe case

D. Virtual machines

Best option

Ridiculous option.

An option, but not the best

- 1) Look for your solution**
- 2) Eliminate obvious wrong options**
- 3) Verify the answer is BEST - Containers are Portable and supported in autoscaling environments**

Question: Your company wants to try out the cloud with low risk. They want to archive approximately 100 TB of their log data to the cloud and test the serverless analytics features available to them there, while also retaining that data as a long-term disaster recovery backup. Which two steps should they take? (choose two)

Google Cloud

Taken from CDL week 4 - Thanks

Question: Your company wants to try out the cloud with **low risk**. They want to archive approximately **100 TB of their log data** to the cloud and test the **serverless analytics** features available to them there, while also retaining that data as a **long-term disaster recovery backup**. Which two steps should they take? (choose two)

Start visualizing what's going on

1. ***Low risk = minimal effort***
2. ***Serverless***
3. ***Analytics***
4. ***100 TB***
5. ***Long term disaster recovery***

Google Cloud

Taken from CDL week 4 - Thanks

Question: Your company wants to try out the cloud with low risk. They want to archive approximately 100 TB of their log data to the cloud and test the serverless analytics features available to them there, while also retaining that data as a long-term disaster recovery backup. Which two steps should they take? (choose two)

Think about these before you answer the question:

Which database is used for serverless analytics?

Which storage option is used for long term storage?

Which storage option would be good for storing backup files - e.g. zip files?

Which 2 services come to mind immediately?

Google Cloud

Modified version of this PCA official sample question:

Question: Your company wants to try out the cloud with low risk. They want to archive approximately 100 TB of their log data to the cloud and test the serverless analytics features available to them there, while also retaining that data as a long-term disaster recovery backup. Which two steps should they take? (choose two)

- A. Load logs into BigQuery.
- B. Load logs into Cloud SQL.
- C. Import logs into Cloud Logging.
- D. Insert logs into Cloud Bigtable.
- E. Upload log files into Cloud Storage.

Recall

- 1. Low risk = minimal effort
- 2. Serverless
- 3. Analytics
- 4. 100 TB
- 5. Long term disaster recovery

- 1) Look for your solutions**
- 2) Eliminate obvious wrong options**

Google Cloud

Modified version of this PCA official sample question:

Question: Your company wants to try out the cloud with low risk. They want to archive approximately 100 TB of their log data to the cloud and test the serverless analytics features available to them there, while also retaining that data as a long-term disaster recovery backup. Which two steps should they take? (choose two)

- A. Load logs into BigQuery.
- B. Load logs into Cloud SQL. *Analytics keyword*
- C. Import logs into Cloud Logs. *Not serverless*
- D. Insert logs into Cloud Bigtable. *Not long term storage*
- E. Upload log files into Cloud Storage. *Not best* *Not long term storage*

Recall

1. Low risk = minimal effort
2. Serverless
3. Analytics
4. 100 TB
5. Long term disaster recovery

Long term storage

- 1) **Look for your solutions**
- 2) **Eliminate obvious wrong options**
- 3) **Verify your answers are BEST**

Google Cloud

Modified version of this PCA official sample question:

Question: You want to set up a real-time analytics platform for a new game. Which combination of Google technologies will be suitable?

Keyword ... What are you looking for?

Google Cloud

Taken from CDL week 4 - Thanks

Question: You want to set up a **real-time analytics platform** for a new game. Which combination of Google technologies will be suitable?

Keyword ... What are you looking for?

Google Cloud

Taken from CDL week 4 - Thanks

Question: You want to set up a real-time analytics platform for a new game. Which combination of Google technologies will be suitable?

- 1) Look for the keyword solution**
- 2) Confirm nothing is better**

- A. Cloud Dataflow, Cloud Pub/Sub, and BigQuery
- B. Cloud SQL, Cloud Storage, Cloud Pub/Sub
- C. Cloud Dataproc, Cloud Pub/Sub, Cloud SQL
- D. Cloud Pub/Sub, Compute Engine, Cloud Storage

Question: You want to set up a real-time analytics platform for a new game. Which combination of Google technologies will be suitable?

- 1) Look for the keyword solution**
- 2) Confirm nothing is better**

- A. Cloud Dataflow, Cloud Pub/Sub, and BigQuery
- B. Cloud SQL, Cloud Storage, Cloud Pub/Sub
- C. Cloud Dataproc, Cloud Pub/Sub, Cloud SQL Winner
- D. Cloud Pub/Sub, Compute Engine, Cloud Storage No analytics at all

No mention of Hadoop (for Dataproc)

Possible, but not the best choice

Question: Your company has a mission-critical application that serves users globally. You need to select a transactional, relational data storage system for this application. Which two products should you choose?

Google Cloud

Taken from CDL week 4 - Thanks

Question: Your company has a mission-critical application that serves users globally. You need to select a transactional, relational data storage system for this application. Which two products should you choose?

Think about these before you answer the question:
Which database services are transactional and relational?
Which of them are global?

Google Cloud

Taken from CDL week 4 - Thanks

Question: Your company has a mission-critical application that serves users globally. You need to select a transactional, relational data storage system for this application. Which two products should you choose?

- A. BigQuery
- B. Cloud SQL
- C. Cloud Spanner
- D. Cloud Bigtable
- E. Cloud Datastore

Question: Your company has a mission-critical application that serves users globally. You need to select a transactional, relational data storage system for this application. Which two products should you choose?

- A. BigQuery
- B. Cloud SQL
- C. Cloud Spanner
- D. Cloud Bigtable
- E. Cloud Datastore

***Don't need to know the right answer!
Just eliminate the wrong ones!***

But confirm the leftovers fit the question.

Question: Your company has a mission-critical application that serves users globally. You need to select a transactional, relational data storage system for this application. Which two products should you choose?

- A. BigQuery
- B. Cloud SQL *Not Transactional*
- C. Cloud Spanner
- D. Cloud Bigtable
- E. Cloud Datastore

***Don't need to know the right answer!
Just eliminate the wrong ones!***

Not Relational

Not Relational

... but confirm what's left fit the question.

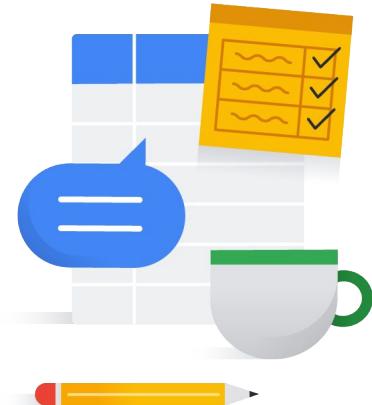
Questions and answers



Google Cloud

Program issues or concerns?

- Problems with **accessing Cloud Skills Boost for Partners**
 - partner-training@google.com
- Problems with **a lab** (locked out, etc.)
 - support@qwiklabs.com
- Problems with accessing **Partner Advantage**
 - <https://support.google.com/googlecloud/topic/9198654>



Google Cloud

- Problems with accessing **Cloud Skills Boost for Partners**
 - partner-training@google.com
- Problems with **a lab** (locked out, etc.)
 - support@qwiklab.com
- Problems with accessing **Partner Advantage**
 - <https://support.google.com/googlecloud/topic/9198654>

Feedback Form

Google Cloud

Feedback Form: <https://forms.gle/LGkGUXScditnC1ec9>

Thank you