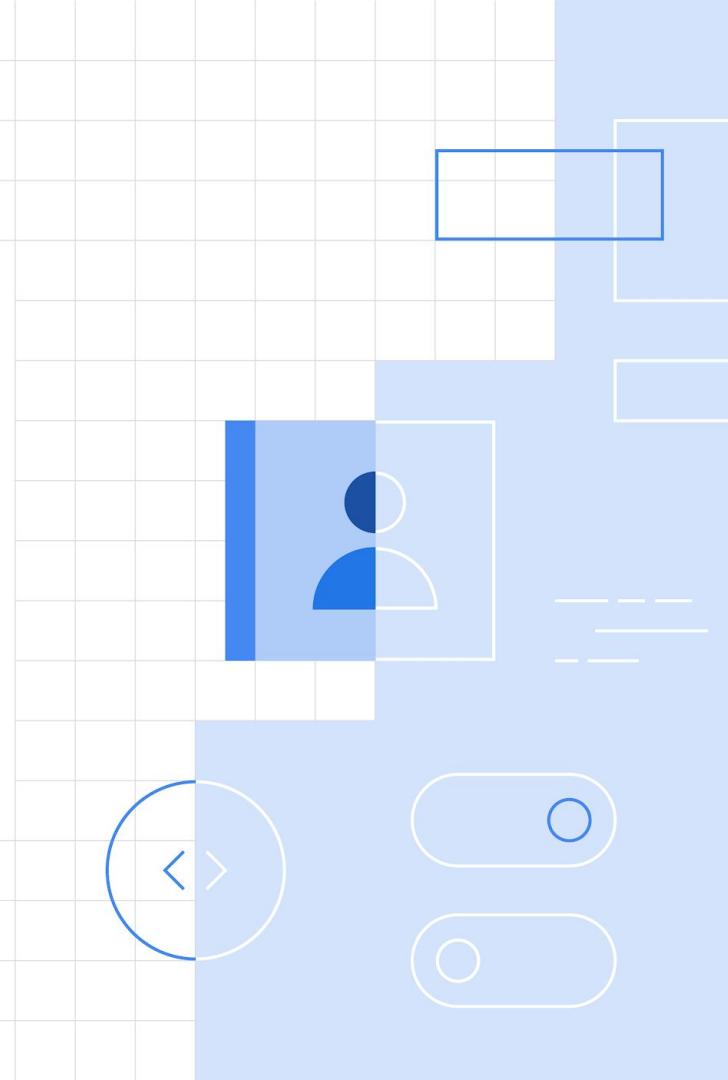




Serverless avec GCP, c'est quoi Cloud Run et quoi de neuf ?

 GDG Cloud Québec

Google Developers



Logistique

Vos options :

- Utilisez le chat et la fonction Q&A en tout temps pour poser vos questions au fur et à mesure
- Allumez votre caméra en tout temps
- Prenez la parole avec votre microphone à la fin de la session
- Restez jusqu'à la fin pour pouvoir remplir le court sondage et participer pour les prix de présence

Prendre note que la session est enregistrée et que la vidéo sera disponible sur YouTube

Nos organisateurs



Amélie Boudreault
Développeuse Full Stack



Olivier Munro
Directeur de Comptes Séniior



Nos co-organisateurs



Mathieu Benoit

CE

Google



Nadine Boucher

CE

Google



Xavier Tremblay

CE

Google

Recap du lancement du GDG

- 5 licenses Pluralsight (et présentations à venir ;))
- Résumé du top 4 des réponses au sondage
 - Kubernetes (conteneurs)
 - Produits GCP (AppEngine, CloudSQL, Cloud Run, Serverless et autres)
 - ML/AI
 - Sécurité
- Sondage à la fin de la présentation d'aujourd'hui
- Prix de présences

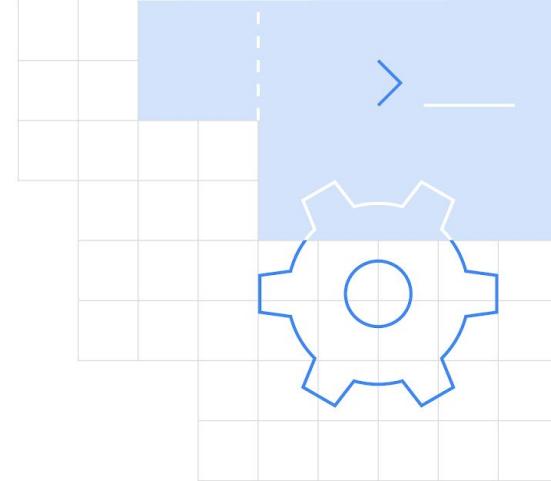
Aujourd'hui

1. Introduction et cas d'utilisations de CloudRun
2. Démonstration de CloudRun sur Qwiklabs
3. Formulaire et prix de présences

C'est quoi Cloud Run et quoi de neuf ?

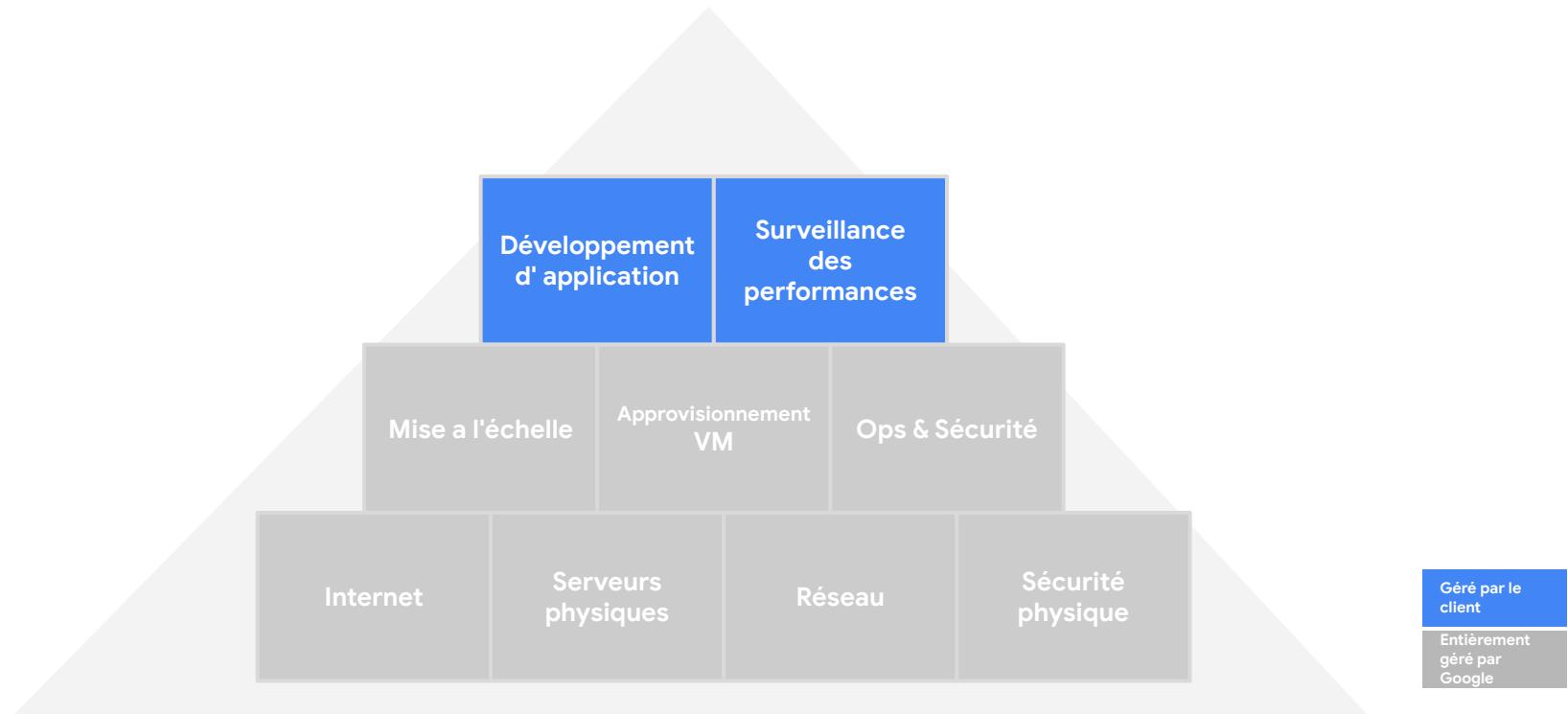


Steren Giannini - @steren
Product Manager, Google Cloud



Pyramide des responsabilités

Serverless



Cloud Run

Fait tourner des **conteneurs**
dans un environnement
entièrement géré.

<https://cloud.run>



Auto-scaling



Pas de gestion
d'infra



Productivité

- Déployez des conteneurs en quelques secondes (n'importe quel langage ou bibliothèque)
- Une expérience développeur simple et efficace
- HTTPS automatique, noms de domaine personnalisés
- Interopérabilité (basé sur Knative, in standard ouvert)
- Payer à l'utilisation



Cas d' usage

Build a web app

Web app

Request-based services

Developing APIs

Web & mobile backends

Internal APIs and services

Data Processing

Automation

Workflow & Orchestration

Event driven reactive automation

Connecting Cloud Services



Démo





Prêt pour votre
entreprise

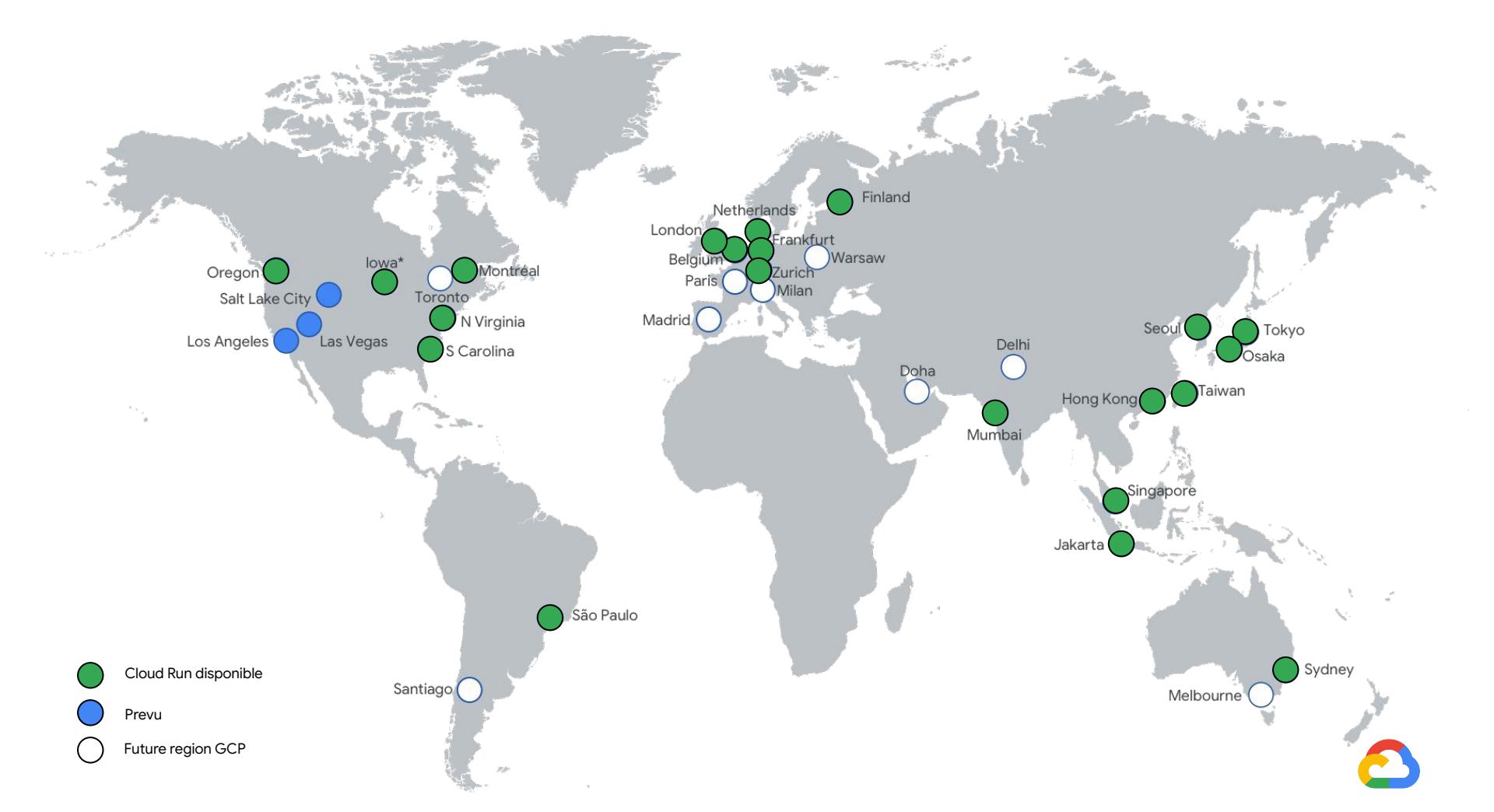


Disponibilité générale

99.95% SLA

GA



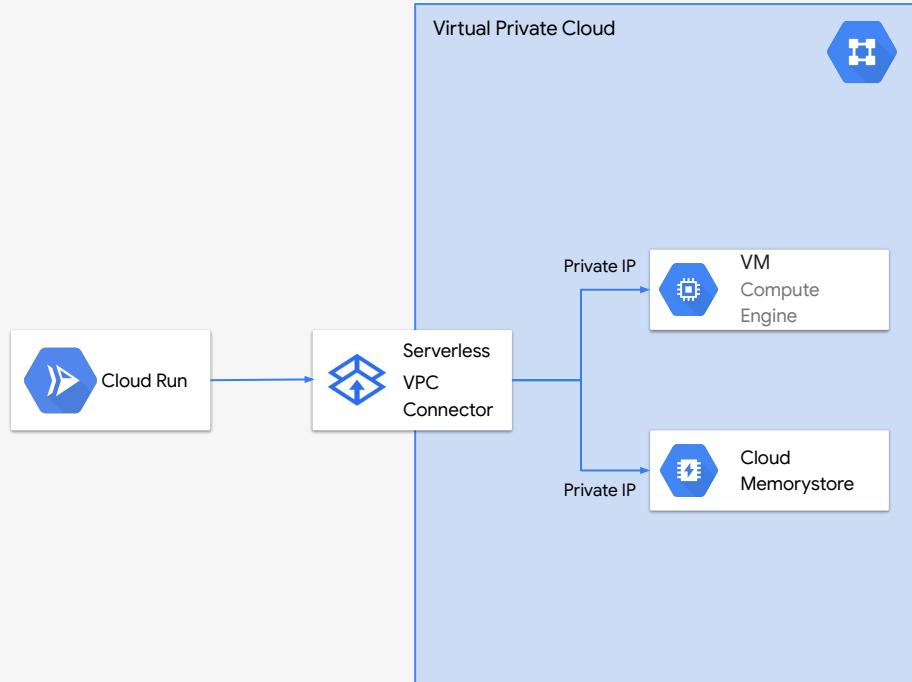


Accès VPC

Connecter à
Cloud Memorystore
Redis et Memcached

Connecter à des IPs privées

GCP Project



Déploiement graduel & retour en arrière

% du trafic entre des
révisions

Déploiements bleus/verts

URLs de révisions

```
# Gradual rollout

$ gcloud beta run deploy myservice \
    --image gcr.io/project/image:f5bd774 \
    --no-traffic \
    --tag green
$ curl https://green--myservice-12345-us.a.run.app

$ gcloud beta run services update-traffic myservice \
    --to-tags green=1

$ gcloud beta run services update-traffic myservice \
    --to-tags green=10

$ gcloud beta run services update-traffic myservice \
    --to-tags green=50

$ gcloud beta run services update-traffic myservice \
    --to-tags green=100

# Rollback

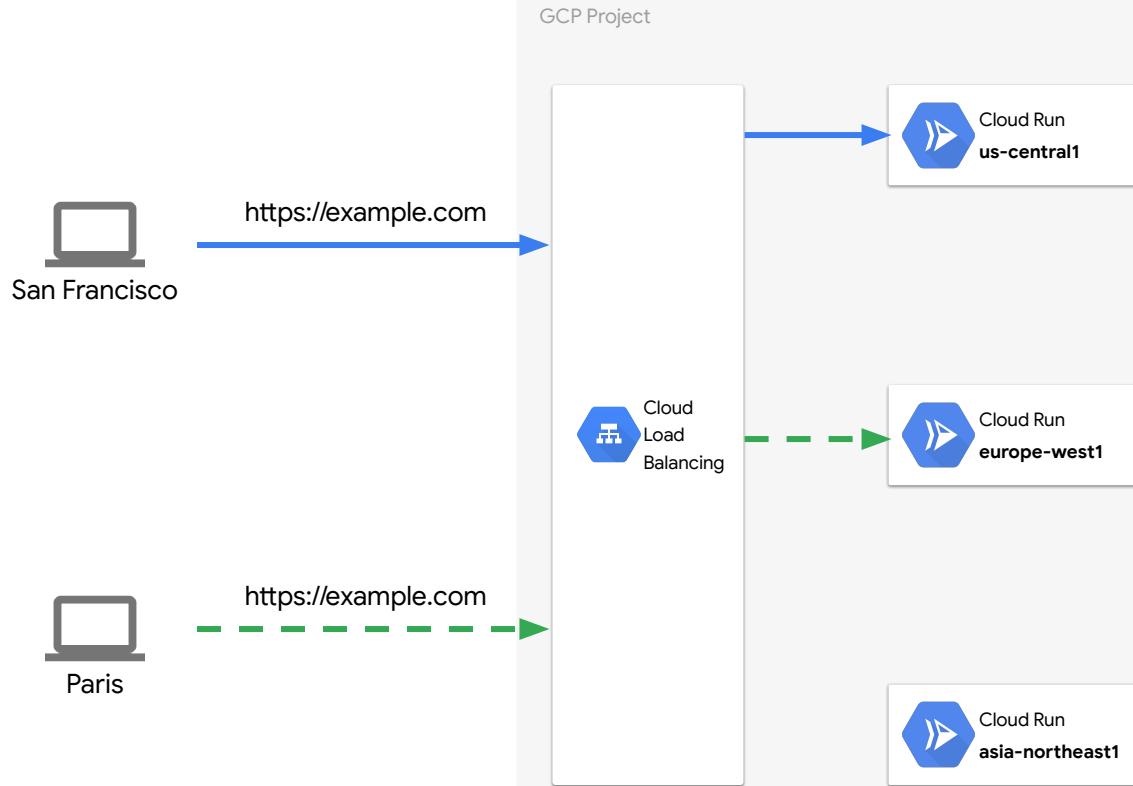
$ gcloud run services update-traffic myservice
    --to-revisions my-service-0002-joy=100
```

Équilibrage de charge multi-régions

via HTTP(S) Load Balancing

Exposer un **endpoint global** qui achemine les requêtes vers le service le plus proche..

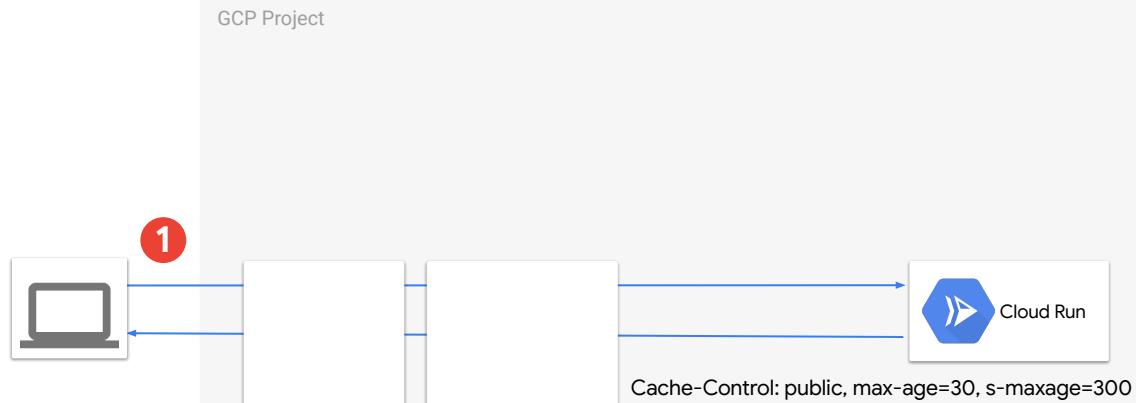
être résistant aux problèmes régionaux.



Cloud CDN

via HTTP(S) Load Balancing

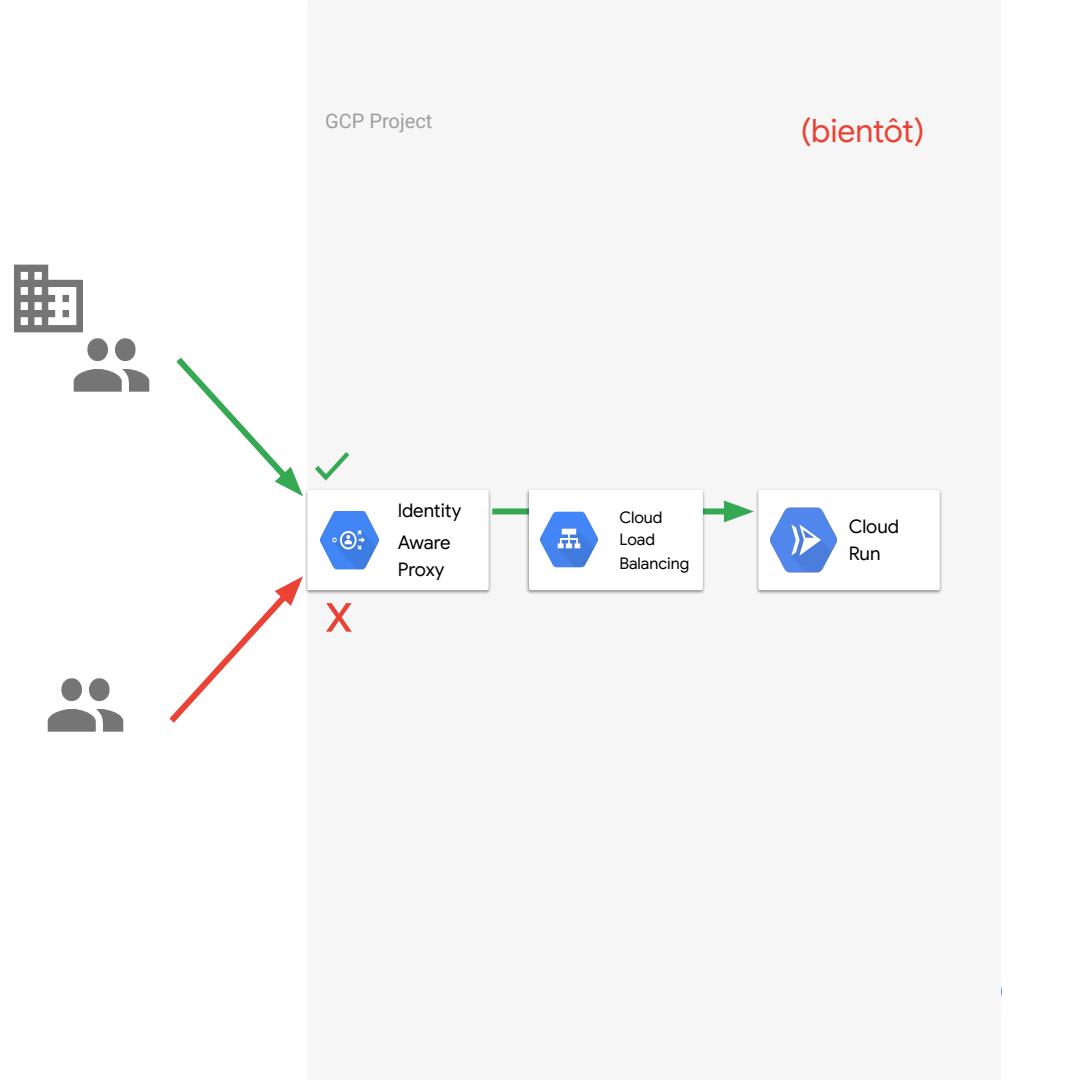
Réduire la charge sur votre service
et améliorer ses performances.



Identity Aware Proxy

via HTTP(S) Load Balancing

- Créer des app webs internes:
 - écran de connexion
 - autoriser uniquement les membres de l'organisations



Cloud Armor

via HTTP(S) Load Balancing

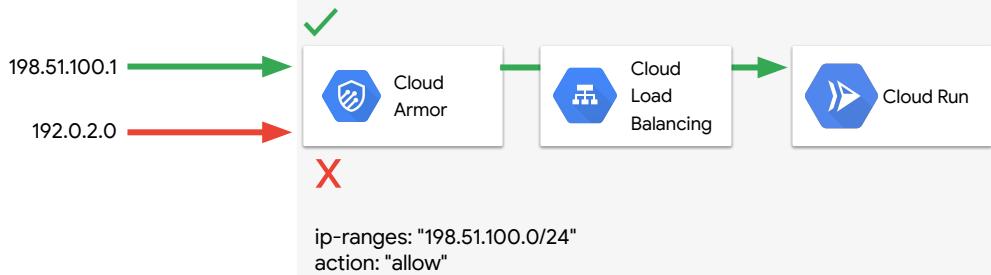
Protection DDoS

Filtrer le trafic par:

- adresse IP
- géographie

Règles firewall

GCP Project



Prêt pour votre entreprise

- GA
- 12 régions
- Accès VPC
- Déploiement graduel
- Cloud Artifact Registry
- Multi-régions
- Cloud CDN
- Identity Aware Proxy
- Cloud Armor





Pour les développeurs



Satisfaction
client

90%



Déployer depuis YAML

Stocker la configuration dans
le système de version.

```
$ cat service.yaml
apiVersion: serving.knative.dev/v1
kind: Service
metadata:
  name: my-service
spec:
  template:
    spec:
      containers:
        - image: gcr.io/cloudrun/hello

$ gcloud beta run services replace service.yaml
```

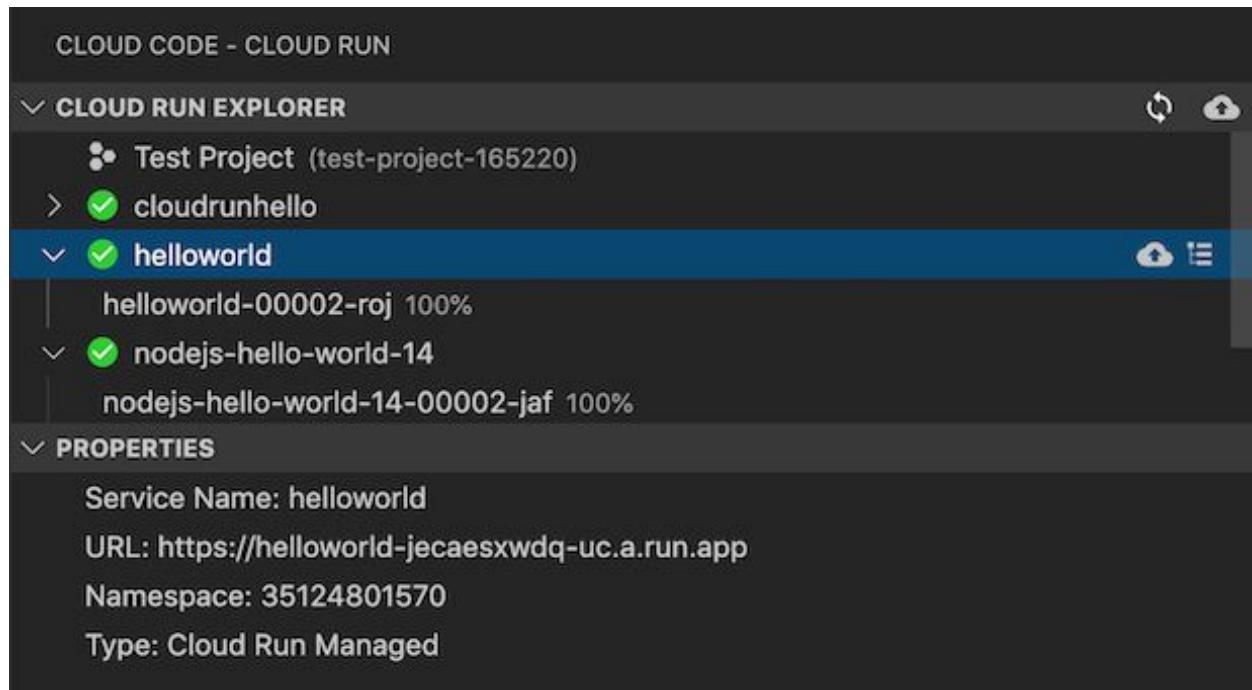
Intégration avec Cloud Code

App d'exemple

Gérer service

Déployer

Développement local



Déployer du code

Créer des conteneurs dans ces langages:

- ✓ Go 1.10 +
- ✓ Node.js 10+
- ✓ Python 3.7+
- ✓ Java 8, 11
- ✓ .NET Core 3.1 +

Via GCP Buildpacks

- Open source
- Standard ouvert

```
$ ls  
index.js          package.json
```

```
$ gcloud beta run deploy --source .
```

Lien vers les source

Quand le conteneur est créé
en utilisant Cloud Build

DETAILS YAML

Deployed by Cloud Build using gcloud

Container image URL	us.gcr.io/my-project/my-image@sha256:84fdcaa2788... 
Container build	Cloud Build
Container source	https://github.com/steren/my-repo/commit/1ed3786... 
Container port	8080
Container command and args	(container endpoint)
Autoscaling	Up to 1,000 container instances
CPU allocated	1
Memory allocated	256Mi
Concurrency	80
Request timeout	900 seconds
Service account	Default Compute service account
VPC connector	None



Déploiement continu facile

Déploiement automatique depuis un dépôt Git en utilisant Cloud Build Triggers

Google Cloud Platform run-next

Cloud Run Service details EDIT & DEPLOY NEW REVISION EDIT CONTINUOUS DEPLOYMENT

hello-cd Region: us-central1 URL: <https://hello-cd-7inurqf35q-uc.a.run.app>

Build History: Latest

METRICS	REVISIONS	LOGS	DETAILS	YAML	PERMISSIONS													
	Revisions MANAGE TRAFFIC																	
	Filter revisions																	
	<table border="1"><thead><tr><th>Name</th><th>Traffic</th><th>Deployed</th><th>Revision URL</th><th>Actions</th></tr></thead><tbody><tr><td>hello-cd-00003-hed</td><td>100%</td><td>Just now</td><td>+</td><td>⋮</td></tr><tr><td>hello-cd-placeholder</td><td>0%</td><td>1 minute ago</td><td></td><td>⋮</td></tr></tbody></table>	Name	Traffic	Deployed	Revision URL	Actions	hello-cd-00003-hed	100%	Just now	+	⋮	hello-cd-placeholder	0%	1 minute ago		⋮		
Name	Traffic	Deployed	Revision URL	Actions														
hello-cd-00003-hed	100%	Just now	+	⋮														
hello-cd-placeholder	0%	1 minute ago		⋮														

hello-cd-00003-hed
Deployed by [Cloud Build](#) (trigger) using gcloud

CONTAINER VARIABLES NETWORKING YAML

General

Image URL	us.gcr.io/run-next/github_as-a-service_meme@sha256-138455388069-compute@developer.gserviceaccount.com
Build	Cloud Build
Source	https://github.com/as-a-service/meme/commit/0db3...
Port	8080
Command and args	(container entrypoint)
Service account	138455388069-compute@developer.gserviceaccount.com

Capacity

CPU allocated	1
Memory allocated	256Mi
Concurrency	80
Request timeout	300 seconds

"Triggers"

Déclencher un service depuis des événements émis de ressources GCP.

Basé sur un standard ouvert CNCF:



- ✓ Service settings
- ✓ Configure the service's first revision
- ③ Define triggers

[+ ADD TRIGGER](#)

New trigger

Type to filter

Native	
Cloud Pub/Sub	Bucket created ?
Cloud Audit Logs ? any GCP source via Cloud Audit Logs	Bucket deleted ?
Cloud Storage (via Cloud Audit Logs)	

CANCEL SAVE



Authentication *

- Allow unauthenticated invocations
Check this if you are creating a public API or website.
- Require authentication
Manage authorized users with Cloud IAM.

[CREATE](#) CANCEL



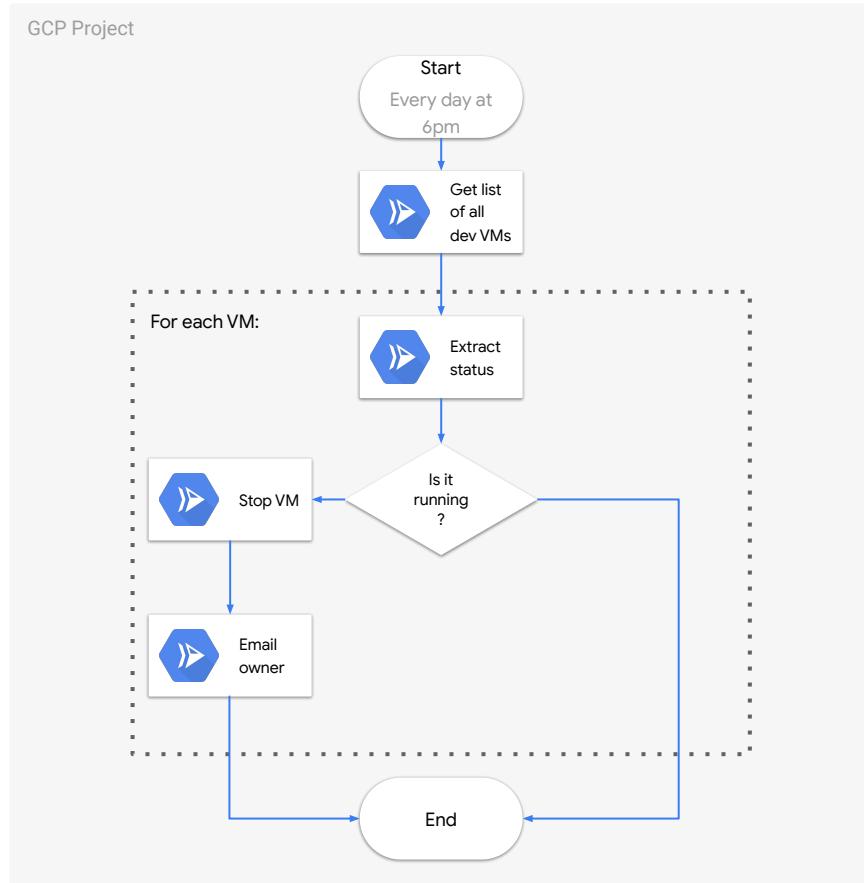
Cloud Workflows

Orchestrer des tâches serverless.

Entièrement géré.

Cas d'usage

- traitement d'événements
- Enchaîner les appels d'API
- Automatisation d'infra



Pour les développeurs

- Déployer depuis YAML
- Cloud Code
- Buildpacks
- Lien vers les sources
- Déploiement continu
- "Triggers"
- Cloud Workflows





Plus flexible



8 GB RAM

4 vCPUs

Memory allocated

4 GiB

Memory to allocate to each container instance.

CPU allocated

4

Number of vCPUs allocated to each container instance.



(bientôt)

1h de délai d'expiration

Request timeout

3600

seconds

Time within which a response must be returned (maximum 3600 seconds).



Nombre minimal d'instances

Garde un number d'instance allumées.

Réduire le nombre de "cold starts"

Moins cher quand non utilisé.



Streaming

WebSockets
HTTP server-side

```
$ cat main.go
...
http.HandleFunc("/", func(w http.ResponseWriter, r
    *http.Request) {
    w.Header().Set("Content-Type", "video/mp4")
    w.Header().Set("Transfer-Encoding", "chunked")

    f, _ := os.Open("videos/demo.mp4")
    io.Copy(w, f)
})

port := os.Getenv("PORT")
log.Fatal(http.ListenAndServe(fmt.Sprintf(":%s", port), nil))
```

Support de gRPC et HTTP/2

bi-directionnel

```
$ cat main.go
...
func main() {
    port := os.Getenv("PORT")
    listener, err := net.Listen("tcp", ":"+port)
    grpcServer := grpc.NewServer()
    pb.RegisterPingServiceServer(grpcServer, &pingService{})

    if err = grpcServer.Serve(listener); err != nil {
        log.Fatal(err)
    }
}
```

Cloud Run

Prêt pour l'entreprise

- GA
- 12 régions
- Accès VPC
- Déploiement graduel
- Cloud Artifact Registry
- Multi-régions
- Cloud CDN
- Identity Aware Proxy
- Cloud Armor

Developer friendly

- Deploy from YAML
- Cloud Code
- Cloud buildpacks
- Source context
- Continuous Deployment
- Events for Cloud Run
- Cloud Workflows

Plus flexible

- 4 GB RAM
- 4 vCPUs
- 1h request timeouts
- Min instances
- SIGTERM
- gRPC support
- streaming



Guides, documentation, tutoriels:

<https://cloud.run>

Aide

StackOverflow:

Avec le tag "**google-cloud-run**"



Questions?

Steren Giannini - @steren

Product Manager, Google Cloud



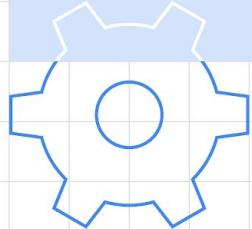
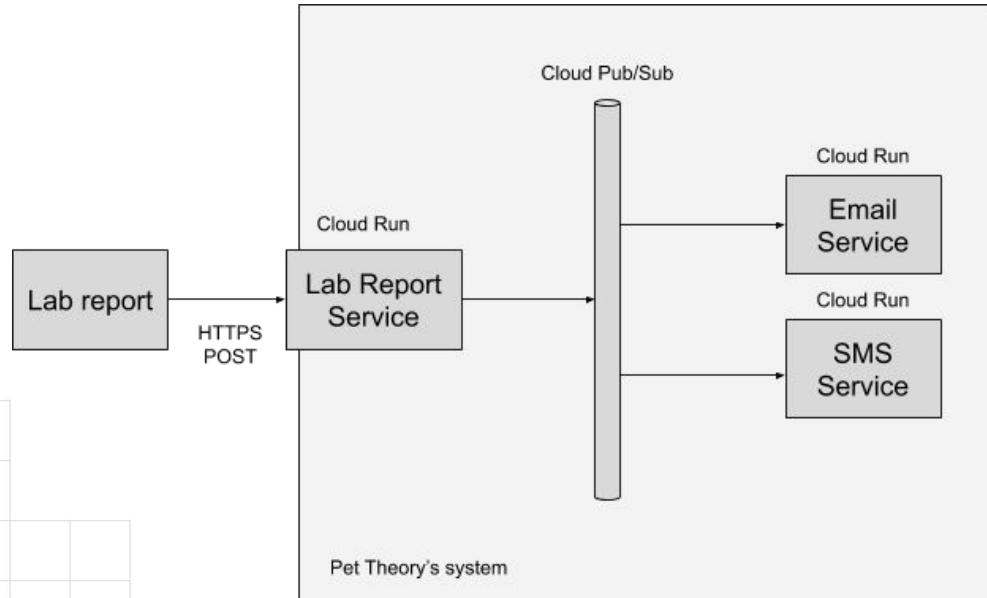
Démonstration de Cloud Run avec Qwiklabs



Mathieu Benoit

Build a Resilient, Asynchronous System with Cloud Run and Pub/Sub

qwiklabs.com/focuses/8395?parent=catalog



Où continuer avec Cloud Run ?

Cloud Run

[cloud.run](https://cloud.google.com/run)

Awesome Cloud Run

github.com/steren/awesome-cloudrun

Cloud Run FAQ

github.com/ahmetb/cloud-run-faq

Lifecycle of a container on Cloud Run

cloud.google.com/blog/topics/developers-practitioners/lifecycle-container-cloud-run

Build a Resilient, Asynchronous System with Cloud Run and Pub/Sub

qwiklabs.com/focuses/8395?parent=catalog

Pic-a-Daily Serverless Workshop

g.co/codelabs/serverless-workshop

Google Cloud docs

cloud.google.com/docs

Start running workloads for free

cloud.google.com/free



Google Cloud

DEVELOPER'S CHEAT SHEET

v2020.4.7

Created by the Google Developer Relations Team
Maintained at https://4words.dev

Feedback? [@gregsmalins](https://twitter.com/gregsmalins)

COMPUTE

Cloud Run	Services for containerized applications
Cloud Functions	Event-driven serverless functions
Compute Engine	VMS, GPUs, TPUs, Disks
Kubernetes Engine (GKE)	Manged Kubernetes/containers
App Engine	Managed app platform
Bare Metal Solution	Hardware for specialized workloads
Preemptible VMs	Short-lived compute instances
Shielded VMS	Hardened VMs
Sole-tenant nodes	Dedicated physical servers

STORAGE

Cloud Firestore	Managed NFS server
Cloud Storage	Multi-class multi-region object storage
Persistent Disk	Block storage for VMs
Local SSD	VM locally attached SSDs

DATA BASE

Cloud Bigtable	Petabyte-scale, low-latency, non-relational
Cloud Firestore	Serverless NoSQL document DB
Cloud Memorystore	Managed Redis and Memcached
Cloud Spanner	Horizontally scalable relational DB
Cloud SQL	Managed MySQL/PostgreSQL/SQL Server

DATA AND ANALYTICS

BigQuery	Data warehouse/analytics
BigQuery BI Engine	Cloud-native analytics engine
BigQuery ML	BigQuery model training/service
Cloud Composer	Managed workflow orchestration service
Cloud Data Fusion	Graphically manage data pipelines
Cloud Dataflow	Stream and batch processing
Cloud Dataproc	Apache Hadoop and Apache Spark
Cloud Dataproc	Managed Spark and Hadoop
Cloud Datastore	Global real-time messaging
Cloud Pub/Sub	Metadata management service
Data Catalog	Collaborative data exploration/dashboarding
Data Studio	Enterprise BI and Analytics
Looker	

HYBRID AND MULTI-CLOUD

Antos	Enterprise hybrid/multi-cloud platform
Antos GKE	Hybrid/on-prem Kubernetes Engine
Antos Config Management	Policy and security automation
Antos Service Mesh	Managed service mesh (Istio)
Cloud Run for Antos	Serverless development for Antos
GCP Marketplace for Antos	Pre-configure hybrid/multi-cloud apps
Migration for Antos	Move VMs to Kubernetes
Operations	Monitoring, logging, troubleshooting
Cloud Build	Continuous integration/delivery platform
Traffic Director	Service mesh traffic management
Apigee API Management	API management, development, security

AI/ML

AI Hub	Hosted AI component sharing
AI Platform Data Labeling	Data labeling by humans
AI Platform Data Labeling API	Programmatic API for data labeling
AI Platform Deep Learning Containers	Preconfigured containers for deep learning
AI Platform Notebooks	Managed JupyterLab notebook instances
AI Platform Pipelines	Automated model serving
AI Platform Predictions	Distributed AI training
AI Platform	Management interface for ML
AutoML Natural Language	Custom text mode
AutoML Translation	Custom structured data models
AutoML Video Intelligence	Custom video annotation models
Autoregression	Custom autoregression models
Cloud Natural Language API	Text parsing and analysis
Cloud Speech-to-Text API	Convert audio to text
Cloud Talent Solutions API	Job search with ML
Cloud Text-to-Speech API	Convert text to audio
Cloud Video Intellignece API	Custom video annotation models
Cloud Vision API	Image recognition and classification
Contact Center AI	AI in your contact center
Dataflow	Create conversational interfaces
Dialogflow	Manage conversational documents
Explainable AI	Understand ML model predictions
Recommendations AI	Create custom recommendations
Vision Product Search	Visual search for products

NETWORKING

Carrier Peering	Peer through a carrier
Direct Connect	Peer with GCP
Dedicated Interconnect	Dedicated private network connection
Partner Interconnect	Connect on-prem network to GCP
Cloud Armor	DDoS protection and WAF
Cloud CDN	Content delivery network
Cloud DNS	Programmatic DNS
Cloud Load Balancing	Multi-region load distribution/balancing
Cloud NAT	Network address translation service
Cloud Router	VPC-on-prem network route exchange (BGP)
Cloud VPN (HA)	VPN (Virtual private network connection)
Network Service Tiers	Priority-based queuing
Network Topology	Network topology
Traffic Direct	Service mesh traffic management
Cloud Global Service Mesh	Service-aware network management
Cloud Private Network	Software-defined networking
VPC Service Controls	Security perimeter for API-based services
Network Intelligence Center	Network monitoring and topology

GAMING

Google Cloud Game Servers	Orchestrate Agones clusters
---------------------------	-----------------------------

INTERNET OF THINGS (IOT)

Cloud IoT Core	Manage devices, ingest data
----------------	-----------------------------

IDENTITY AND SECURITY

Access Transparency	Audit cloud provider access
Identity Authorization	Kubernetes identity-time security
Cloud Audit Logs	Audit trials for GCP
Cloud Data Loss Prevention API	Classify and reduce sensitive data
Cloud HSM	Hardware security module service
Cloud IAM	Resource access control
Cloud Identity	Manage users, devices & apps
Cloud Identity-Aware Proxy	Identity-based app access
Cloud KMS	Hosted key management service
Cloud Key Management Service	Cloud project metadata management
Cloud Security Command Center	Security findings & data risk platform
Cloud Security Scanner	App engine security scanner
Context-aware Access	End-user attribute-based access control
Event Threat Detection	Scans for suspicious activity
Filebeat Service for Microsoft	Managed Microsoft Active Directory
Active Directory	Monitoring, logging, troubleshooting
Secret Manager	Store and manage secrets
Security Key Enforcement	Two-step key verification
Shielded VMs	Hardened VMs

IDENTITY AND SECURITY (CONT.)

Titan Security Key	Two-factor authentication (2FA) device
VPC Service Controls	VPC data constraints

MANAGEMENT TOOLS

Cloud APIs	APIs for cloud services
Cloud Billing API	Programmatically manage GCP billing
Cloud Billing	Billing and management tools
Cloud Composer	Web-based management console
Cloud Deployment Manager	Templated infrastructure deployment
Cloud Endpoint API	iOS/Android GCP manager app
Cloud Mobile App	Internal Solutions Catalog
Cloud Debugger	Live production debugging
Error Reporting	App error reporting
Cloud Logging	Centralized logs
Cloud Monitoring	Infrastructure and application monitoring
Cloud Profiler	CPU and heap profiling
Cloud Trace	App performance insights
Transparent SLIs	Monitor GCP services

DEVELOPER TOOLS

Cloud Build	Continuous integration/delivery platform
Cloud Code for IntelliJ	IntelliJ GCP tools
Cloud Code for VS Code	VS Code GCP tools
Cloud Devrel API	Cloud Devrel IDE extensions
Cloud Scheduler	Managed cron job service
Cloud SDK	CLI for GCP
Cloud Shell	Browser-based terminal/CLI
Cloud Source Repositories	Held-based git repos
Cloud Tasks	Asynchronous task execution
Cloud Tools for Eclipse	Eclipse GCP tools
Cloud Tools for Visual Studio	Visual Studio GCP tools
Container Analysis	Automated security scanning
Container Registry	Programmatic Docker registry/storage
Artifact Registry	Universal package manager
Grade App Engine Plugin	Grade App Engine plugin
Maven App Engine plugin	Maven App Engine plugin

MIGRATION TO GCP

BuQery Data Transfer Service	Bulk import analytics data
Cloud Data Transfer	Data migration tools/CLI
Google Transfer Appliance	Reusable data transport box
Google Cloud Migration	Migrate VMs to GKE
Google Cloud Migrator	Cloud migration tools
Google Cloud Migrator Redshift	Migrate from Redshift to BigQuery
Migrate from Teradata	Migrate from Teradata to BigQuery
Storage Transfer Service	Online/on-premises data transfer
Cloud Foundation Toolkit	VM migration tools
	Infrastructure as Code templates

API PLATFORM AND ECOSYSTEMS

API Analytics	API metrics
API Monetization	Monetize APIs
Apigee API Platform	Design, build, monitor APIs
Apigee Hybrid	Manage hybrid-in-cloud API environments
Apigee Sense	API protection from attacks
Cloud Endpoints	Cloud API gateway
Cloud Healthcare API	Healthcare system GCP interoperability
Developer Portal	API management portal
GOP Marketplace	Partner & open source marketplace

GOOGLE MAPS PLATFORM

Directions API	Get directions, service locations
Distance Matrix API	Multi-origin/destination travel times
Geocoding API	Convert addresses to/from coordinates
Geolocation API	Derive location within GPS
Maps Embed API	Display iframe embedded maps
Maps JavaScript API	Dynamic web maps
Maps SDK for Android	Maps for Android apps
Maps SDK for iOS	Maps for iOS apps
Maps Static API	Display static images
Maps SDK for Unity	Unity SDK for games
Maps URLs	URL scheme for maps
Places API	Rest-based Places features

GOOGLE MAPS PLATFORM (CONT.)

Places Library	Places features for web
Places SDK for Android	Places features for Android
Places SDK for iOS	Places feature for iOS
Roads API	Convert coordinates to roads
Street View Static API	Street view images
Street View Service	Street view for Javascript
Time Zone API	Convert coordinates to timezone

G SUITE PLATFORM

Admin SDK	Manage G Suite resources
AMP for Email	Dynamic interactive email
Apps Script	Extend and automate everything
Calendar API	Create and manage calendars
Classroom API	Provision and manage classrooms
Drive API	Upload and download files
Drive Activity API	Retrieve Google Drive activity
Drive API	Read and write files
Drive Picker	Drive file selection widget
Email Receipts	Interactive emails using schema.org
G Suite Add-ons	Storefront for integrated add-ons
G Suite Marketplace	Enhance Gmail
Gmail API	Hangouts Chat Bots
Sheets API	People API
Sites API	Create and edit presentations
Task API	Search, read & update Tasks
Vault API	Manage your organization's eDiscovery

MOBILE (FIREBASE)

Cloud Firestore	Document store and sync
Cloud Functions for Firebase	Event-driven serverless applications
Cloud Storage for Firebase	Object storage and serving
Cloud Firestore and Analytics	Crash reporting and analytics
Firebase A/B Testing	Create A/B test experiments
Firebase App Distribution	Tested tester early access
Firebase Authentication	Drop-in authentication
Firebase Cloud Messaging	Send device notifications
Firebase Dynamic Links	Link to app from external links
Firebase Hosting	Production-grade hosting
Firebase In-App Messaging	Send in-app contextual messages
Firebase Performance Monitoring	App/web performance monitoring
Firebase Realtime Database	Real-time data synchronization
Firebase Remote Config	Remotely configure installed apps
Firebase Test Lab	Mobile testing device farm
Google Analytics for Firebase	Mobile app analytics
ML Kit for Firebase	ML APIs for mobile

ADDITIONAL RESOURCES

Google Cloud Home Page	cloud.google.com
Google Cloud Blog	cloud.google.com/blog
Google Cloud Open Source	cloud.google.com/oss/
G2C Market Publication	cloud.google.com/g2c/
App Engine	appengine.google.com
Firebase Blog	firebase.googleblog.com
Firebase Developers Blog	firebase.googleblog.com
G Suite GitHub	github.com/gsuitedevs
G Suite GitHub	github.com/gsuitedevs
Google Cloud Certifications	cloud.google.com/certification
Google Cloud System Status	status.cloud.google.com
Google Cloud Training	cloud.google.com/training
Google Cloud Careers Blog	cloud.google.com/careers/
Google Maps Platform Blog	mapsplatform.googleblog.com
Google Open-Source Project Blog	open-source.googleblog.com
Google Security Blog	security.googleblog.com
Kaggle Home Page	www.kaggle.com
Kubernetes Blog	kubernetes.io/blog
Regions and Network Map	cloud.google.com/about/locations

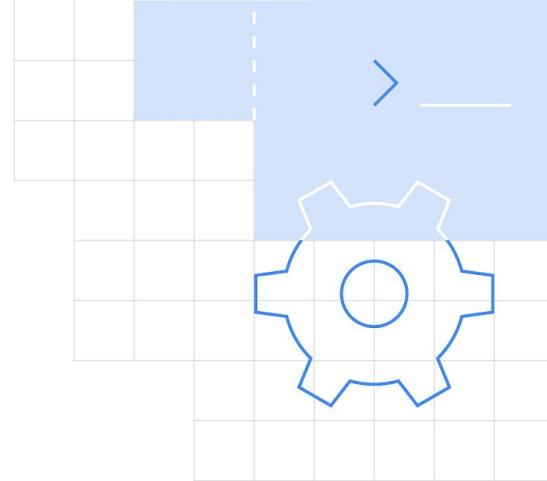
That's a wrap!

<https://forms.gle/DZoBiNXNdy2dvC5d6>

Comment avez-vous trouvé la présentation ?

Que voulez-vous voir dans le futur ?

Voudriez-vous présenter dans le futur ?



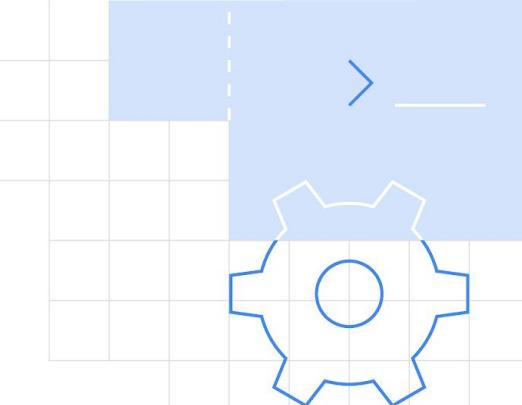
Session : AI Platform



Plate-forme gérée dédiée à la science des données, au machine learning & AutoML.

Vendredi, 26 février 2021 de 12h00-13h30

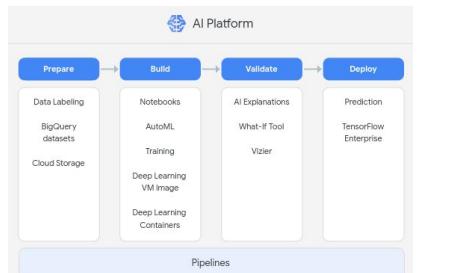
- Aperçu de AI Platform
- Demo : Creation de model et deploiement
- Demo : definition et execution d'un kubeflow pipeline.
- Laboratoire



Pour les développeurs, les scientifiques des données et les ingénieurs de données

AI Platform inclut:

- Notebooks
- Populaire ML frameworks
- VM images (avec CPU, GPU, TPU)
- Support pour MLOps



The screenshot shows the AI Platform (Unified) dashboard with a sidebar and main content area. The sidebar includes links for Dashboard, Datasets, Labeling tasks, Notebooks, Pipelines, Training, Models, Endpoints, and Batch predictions. The main content area features a 'Get started with AI Platform' section with a lightbulb icon and a 'Recent datasets' section listing datasets like 'automl_tabular_banking' and 'automl_video_classification'. It also shows sections for 'Recent models' and 'Recent batch predictions'.

Region	Recent datasets	Recent models	Recent batch predictions
us-central1 (Iowa)	<ul style="list-style-type: none">automl_tabular_bankingautoml_video_classificationautoml_text_comment_classificationautoml_vision_flowers_classification	<ul style="list-style-type: none">automl_video_classification_modelautoml_tabular_banking_modelcustom_trainingautoml_text_comments_classification_modelautoml_vision_classification_model	<ul style="list-style-type: none">video_demo_batch_model_prediction



International's Women Day

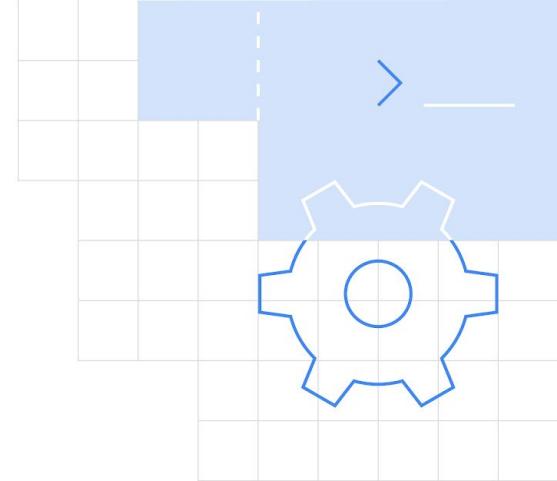
20 mars 2021

Courage de Créer



Women
Techmakers

Tirage de prix



Merci!

