**Architecting Hybrid Infrastructure with Anthos v2.0**

1. Validate access to Qwiklabs at <https://googlecloud.qwiklabs.com>

2. Access presentation slides and resources folder at <https://tinyurl.com/AnthosResources>

3. Validate access to Partner Skills Boost - <https://partner.cloudskillsboost.google>

4. Validate access to Partner Advantage at [https://www.partneradvantage.goog](https://www.partneradvantage.goog/)

[Partner Skills Boost application form](https://inthecloud.withgoogle.com/partner-training/request-training-resources.html) (if required)

[Classroom Link on Qwiklabs](https://googlecloud.qwiklabs.com/classrooms/17533)

[Official Presentation Slides](https://googlecloud.qwiklabs.com/classrooms/17533/notes)

[Course Resources](https://drive.google.com/drive/folders/1-Fay-zI5z0ytISv8gF5ZMMPC2NWW_2GB?usp=sharing)

[Anthos Service Kit](https://docs.google.com/document/d/13Je8xFE78TE4MSmwe-OZKlpuQKBx3NVb40mu1xEKwEo/edit)

[Serverless Service Kit](https://docs.google.com/document/d/19qyV_DzyRp9QRMtiTN5NO59HEKo9Ednfy11uVy3iOuc/edit?resourcekey=0-QQsHBdxWKbJzjgVgdZzDGg)

[Professional Services Organization Practice Documents](https://drive.google.com/drive/u/2/folders/1Gytp8mHYTnQQqltEcL1eM0QMBUZPs30s)

[Anthos Reference Architecture](https://cloud.google.com/static/anthos/docs/architecture/anthos-hybrid-environment-reference-architecture.pdf)

**Day 1**

**Training Presentations & Demos**

09:00-09:30 Course Intro (~30 mins)

09:30-10:30 Introduction to Anthos (~45 mins)

10:45-11:45 Anthos Environments multi-cloud focus (~45 mins)

12:00-13:00 Multi-cluster concepts on Anthos (~60 mins)

13:00-15:00 LUNCH & LABS

15:00-16:00 Manage configuration with Anthos (~60 mins)

16:00-18:00 LABS

**Training Labs**

13:00-15:00 LABS (~1.5 hours)

AHYBRID021 Building Anthos Clusters on GCP and AWS

AHYBRID022 North-south routing with Multi-Cluster Gateways

16:00-18:00 LABS (~2 hours)

AHYBRID071 Configuring Clusters with Anthos Config Management

AHYBRID072 Enforcing policy with Anthos Config Management Policy Controller

**Labs on Google Partner Skills Boost**

1. [AHYBRID021 Building Anthos Clusters on GCP and AWS](https://partner.cloudskillsboost.google/focuses/18555?catalog_rank=%7B%22rank%22%3A1%2C%22num_filters%22%3A0%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=17583838)
2. [AHYBRID071 Configuring Clusters with Anthos Config Management](https://partner.cloudskillsboost.google/focuses/18918?catalog_rank=%7B%22rank%22%3A5%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)
3. [AHYBRID072 Enforcing policy with Anthos Config Management Policy Controller](https://partner.cloudskillsboost.google/focuses/18917?catalog_rank=%7B%22rank%22%3A13%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog)

**Day 2**

**Training Presentations & Demos**

09:00-10:30 Introducing Anthos Service Mesh (~90 mins)

10:45-12:15 Securing Network Traffic with Anthos Service Mesh (~90 mins)

12:30-15:00 LUNCH & LABS

15:00-16:00 Multi-cluster Networking with Anthos Service Mesh (~60 mins)

16:00-18:00 LABS

**Training Labs**

12:30-15:00 & 16:00-18:00 Labs (~3 hours)

AHYBRID032 Anthos Service Mesh walkthrough

AHYBRID041 Observing Anthos Service Mesh

AHYBRID051 Managing traffic flow with Anthos Service Mesh

AHYBRID061 Securing Traffic with Anthos Service Mesh

AHYBRID081 Configuring a multi-cluster mesh with Anthos Service Mesh

**Labs on Google Partner Skills Boost**

1. [Installing Anthos Service Mesh on Google Kubernetes Engine](https://partner.cloudskillsboost.google/focuses/14665?catalog_rank=%7B%22rank%22%3A2%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)
2. [AHYBRID031 Installing Anthos Service Mesh](https://partner.cloudskillsboost.google/focuses/18881?catalog_rank=%7B%22rank%22%3A6%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)
3. [Traffic Management with Anthos Service Mesh](https://partner.cloudskillsboost.google/focuses/14669?catalog_rank=%7B%22rank%22%3A1%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)
4. [AHYBRID041 Observing Anthos Services](https://partner.cloudskillsboost.google/focuses/18446?catalog_rank=%7B%22rank%22%3A9%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)
5. [AHYBRID051 Managing Traffic Flow with Anthos Service Mesh](https://partner.cloudskillsboost.google/focuses/18915?catalog_rank=%7B%22rank%22%3A8%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)
6. [AHYBRID061 Securing Traffic with Anthos Service Mesh](https://partner.cloudskillsboost.google/focuses/18916?catalog_rank=%7B%22rank%22%3A11%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog)
7. [AHYBRID081 Configuring a multi-cluster mesh with Anthos Service Mesh](https://partner.cloudskillsboost.google/focuses/18453?catalog_rank=%7B%22rank%22%3A14%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog)

**Day 3**

**Training Presentations & Demos**

09:00-10:00 Introduction to Anthos Clusters on Bare Metal (~60 mins)

10:15-11:15 Planning and Building the Anthos Admin Cluster (~60 mins)

11:30-12:30 Adding and configuring user clusters (~60 mins)

12:30-15:00 Lunch and Labs

15:00-16:00 Operating and managing clusters (~60 mins)

**Training Labs**

12:30-15:00 & 16:00-18:00 Labs (~4 hours)

AHYBRID091: Creating infrastructure and deploying Anthos clusters on bare metal

AHYBRID092: Deploying workloads on Anthos clusters on bare metal

AHYBRID093: Observing Anthos clusters on bare metal

**Additional Labs on Google Partner Skills Boost**

1. [Deploying Redis Enterprise for GKE and Serverless App on Anthos Bare Metal](https://partner.cloudskillsboost.google/focuses/31632?catalog_rank=%7B%22rank%22%3A10%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)

**Day 4**

**Training Presentations & Demos**

09:00-10:00 Application migration with Anthos (~60 mins)

10:15-11:15 Modern CI / CD (~60 mins)

11:30-12:30 Serverless on Anthos (~60 mins)

12:30-13:00 Open Q&A / Survey

13:00-18:00 LUNCH & LABS

**Training Labs**

14:00-18:00 Labs (~3 hours)

Migrating workloads to containers with Migrate for Anthos

Creating CI/CD Pipelines in Google Cloud for Anthos clusters

Deploy to Cloud Run

Receive Pub/Sub events with Eventarc and Cloud Run

**Labs on Google Partner Skills Boost**

1. [Cloud Run for Anthos](https://partner.cloudskillsboost.google/focuses/29772?catalog_rank=%7B%22rank%22%3A2%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658779)
2. [Traffic Management with Cloud Run](https://partner.cloudskillsboost.google/focuses/30835?catalog_rank=%7B%22rank%22%3A5%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658793)
3. [Migrate for Anthos: Qwik Start](https://partner.cloudskillsboost.google/focuses/14780?catalog_rank=%7B%22rank%22%3A3%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)
4. [Migrate for Anthos: Windows](https://partner.cloudskillsboost.google/focuses/15613?catalog_rank=%7B%22rank%22%3A4%2C%22num_filters%22%3A1%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=16658685)

**Additional Resources**

**Podcast**

[GKE Gateway Controller](https://www.gcppodcast.com/post/episode-300-gke-gateway-controller-with-bowei-du-and-abdelfettah-sghiouar/)

[Working with Kubernetes and KRM](https://www.gcppodcast.com/post/episode-273-working-with-kubernetes-and-krm-with-megan-okeefe/)

**Blog**

[Build a platform with KRM](https://cloud.google.com/blog/topics/developers-practitioners/build-platform-krm-part-1-whats-platform)

**YouTube**

[Anthos on YouTube](https://www.youtube.com/user/googlecloudplatform/search?query=anthos)

[Migrate to Containers](https://www.youtube.com/playlist?list=PLIivdWyY5sqLbI6lgiwBLI6OJ94X7AjNW)

**Quest**

[Anthos Service Mesh](https://partner.cloudskillsboost.google/quests/151?catalog_rank=%7B%22rank%22%3A1%2C%22num_filters%22%3A0%2C%22has_search%22%3Atrue%7D&search_id=16658670)

**Github Demos**

[Anthos Demos and Sample Scripts on Github](https://github.com/GoogleCloudPlatform/anthos-samples)

[Migrate to Containers Demo Scripts on Github](https://github.com/GoogleCloudPlatform/migrate-to-containers)

[Anthos on AWS / Azure](https://github.com/bkauf/anthos-terraform)

[Migrate to Containers Demos](https://github.com/GoogleCloudPlatform/migrate-to-containers)

**Binary Authorization**

<https://cloud.google.com/binary-authorization/docs/set-up-platform>

**Open Source Projects**

[CNCF Open Source Dashboard](https://istio.devstats.cncf.io/d/8/dashboards?orgId=1&refresh=15m)

[Google Open Source Projects](https://opensource.google/projects/explore/featured)

[CNCF Kubernetes Contributions](https://k8s.devstats.cncf.io/d/8/company-statistics-by-repository-group?orgId=1)

[CNCF Istio Contributions](https://istio.teststats.cncf.io/d/4/company-statistics-by-repository-group?orgId=1)

**Training Resources**

[Free Google Cloud Training for Partners](https://events.withgoogle.com/partner-learning-training-schedule/#content)

**White Papers**

[Anthos Overview White Paper](https://drive.google.com/file/d/14bz0oz3P3zV-Ty0DJNty3b3n5EfKEW4u/view?usp=sharing)

**Product Documentation**

[Anthos Documentation](https://cloud.google.com/anthos/docs)

**Anthos Deployment**

[Anthos Deployment Options](https://cloud.google.com/anthos/deployment-options)

**Config Management**

[Anthos Config Management Blueprints](https://cloud.google.com/anthos-config-management/docs/concepts/blueprints)

**Istio**

[Istio Service Mesh Concepts](https://istio.io/latest/docs/concepts/)

[Life of a Packet through a Service Mesh](https://www.youtube.com/watch?v=oZrZlx2fmcM)

[Istio Service Mesh Performance](https://istio.io/v1.7/docs/ops/deployment/performance-and-scalability/)

[Next Generation Istio Ambient Mesh](https://istio.io/latest/blog/2022/introducing-ambient-mesh/)

**Cloud Landing Zone**

[Google Cloud Security Foundation](https://services.google.com/fh/files/misc/google-cloud-security-foundations-guide.pdf)

**Anthos Service Mesh**

[Anthos Service Mesh Supported Features](https://cloud.google.com/service-mesh/docs/supported-features)

**Anthos Industry Solutions**

[Expanding Partner Solutions at the Network Edge](https://cloud.google.com/blog/topics/anthos/expanding-partner-solutions-at-the-network-edge)

**DevOps**

[Dora Research](https://cloud.google.com/blog/products/devops-sre/announcing-dora-2021-accelerate-state-of-devops-report)

**Anthos Bare Metal**

[Anthos Baremetal Lenovo Reference Architecture](https://lenovopress.lenovo.com/lp1215.pdf)

**Google Distributed Cloud**

[Google Distributed Cloud Virtual Tutorials](https://cloud.google.com/anthos/clusters/docs/bare-metal/latest/try/admin-user-gce-vms)

**Reference Architecture**

[Cloud Architecture Framework](https://cloud.google.com/architecture)

[Anthos Reference Architecture: Anthos Hybrid Environment](https://cloud.google.com/static/anthos/docs/architecture/anthos-hybrid-environment-reference-architecture.pdf)

**Policy Controller**

[Writing Custom Policy Controller Constraint Templates](https://cloud.google.com/anthos-config-management/docs/how-to/write-custom-constraint-templates)

**Google Cloud Locations**

[Google Cloud Inter-regional Latency](https://lookerstudio.google.com/u/0/reporting/fc733b10-9744-4a72-a502-92290f608571/page/70YCB)

[Google Cloud Region Picker](https://googlecloudplatform.github.io/region-picker/)

[Google Cloud Region Selector](https://cloud.withgoogle.com/region-picker/)

**Competitive**

[Anthos Competitive Positioning](https://competitiveinsightshub.withgoogle.com/area/21/matrix/1487)

**Kubernetes**

[Kubernetes Gateway API](https://istio.io/latest/docs/tasks/traffic-management/ingress/gateway-api/)

[Deploying Multi-cluster Gateway Controller](https://cloud.google.com/kubernetes-engine/docs/how-to/deploying-multi-cluster-gateways)

**General Lab Tips**

If you get a provisioning error related to insufficient resources / quota available in a zone, you could try modifying the startup script in the setup-vm to use another zone, maybe one in europe such as europe-west1-b