Networking in Google Cloud

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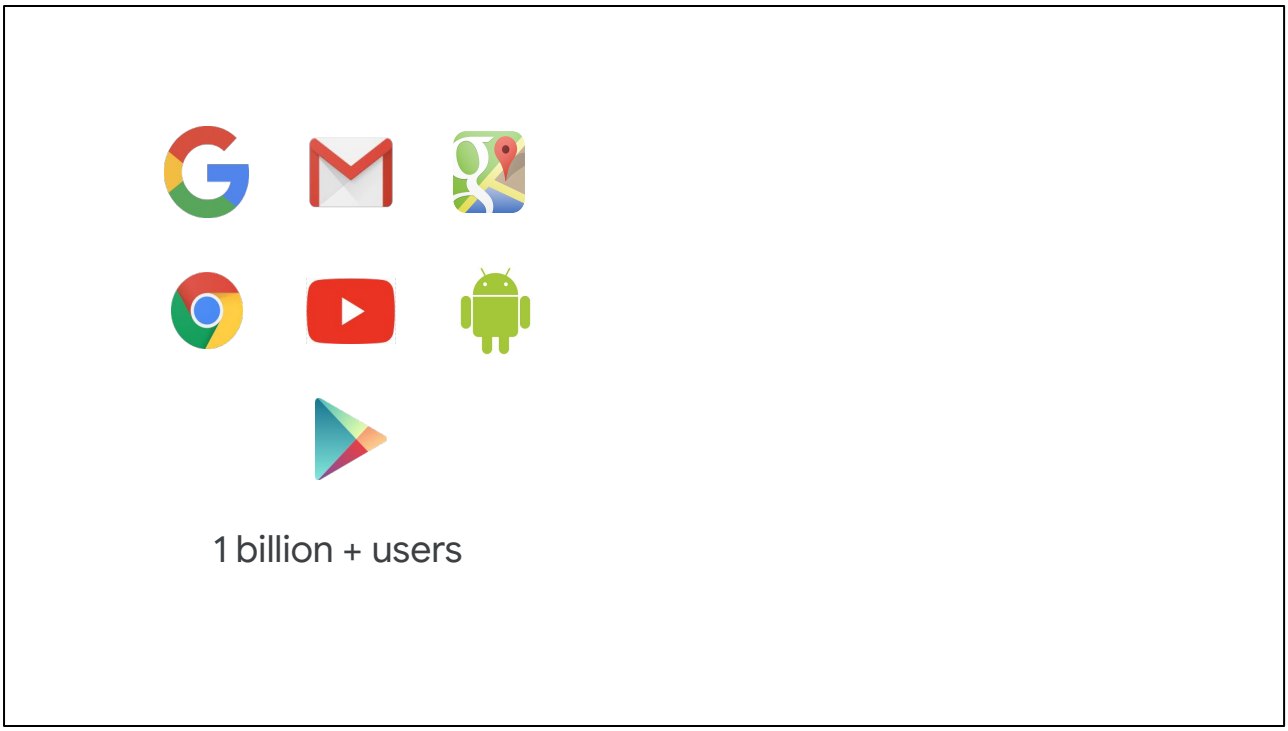
Hello, I'm Philipp Maier, a course developer at Google; welcome to Networking in Google Cloud.

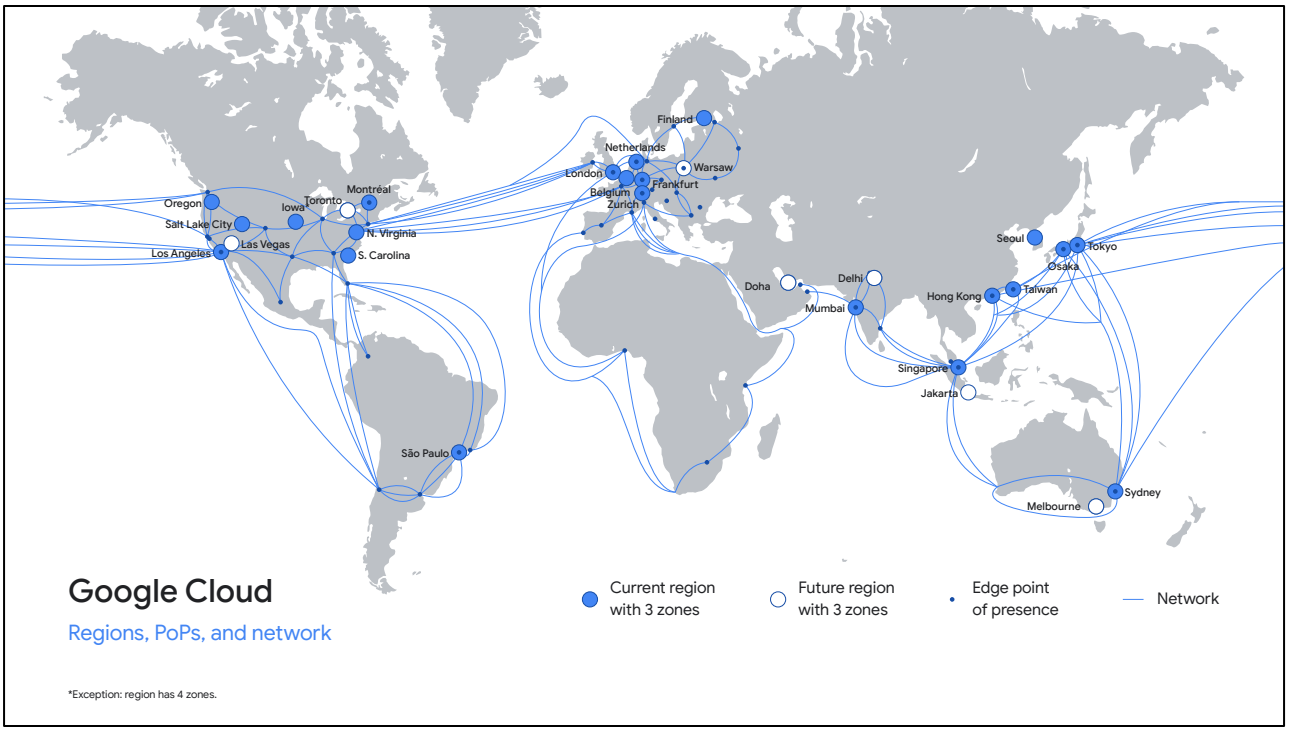
Consider for a second the impact Google Search has on our daily lives with timely and relevant responses.



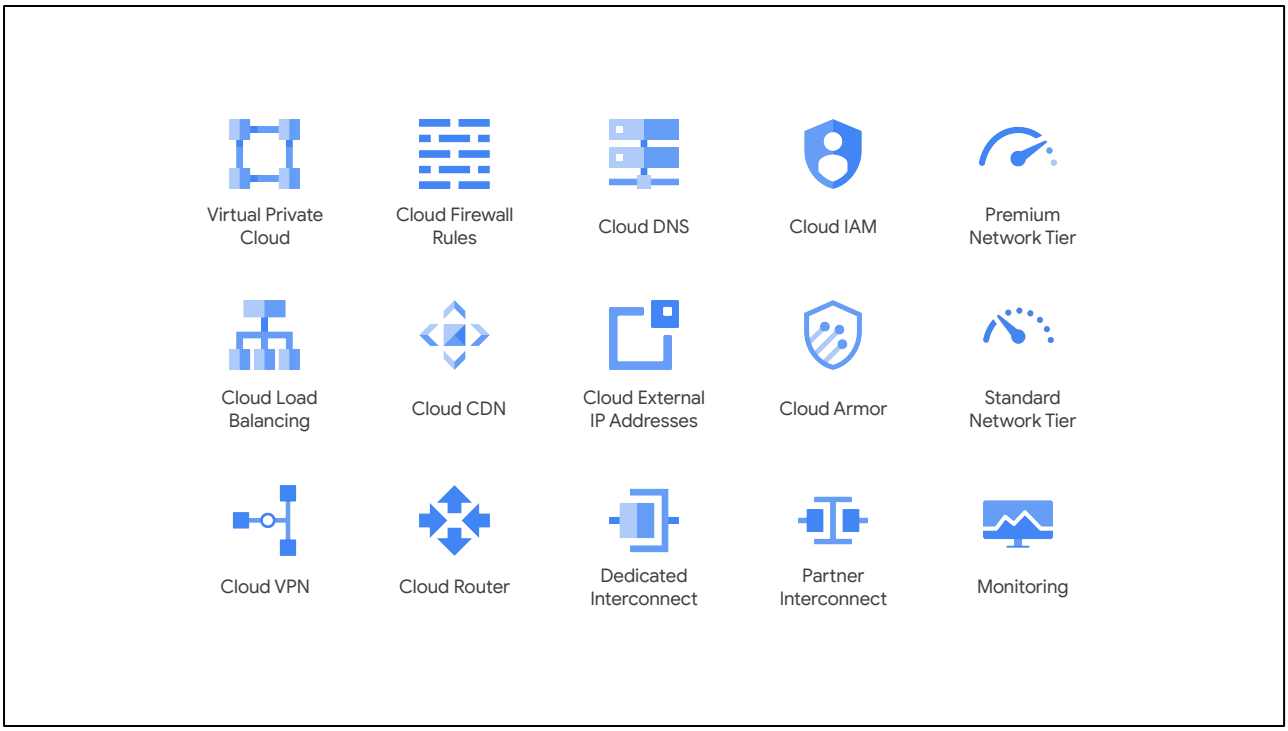
Now, think of other Google products—Gmail, Maps, Chrome, YouTube, Android, Play.

Each of these products has over 1 billion monthly users. Google had to develop networking technologies to meet the requirements of a distributed computing infrastructure that can support those billions of users. Google Cloud's goal is to share these innovations and infrastructure with you so that you can also impact and delight your users.

In this course series, we cover a critical piece of that infrastructure, which is the network.



This map represents Google Cloud''s network from an infrastructure perspective. As of this recording, Google Cloud's well-provisioned global network connects 52 zones to over 100 points of presence through hundreds of thousands of miles of fiber optic cable. Google is continuously investing in this network, with new regions, points of presence, and subsea cable investments.



On top of this network, Google Cloud uses state-of-the-art software-defined networking and distributed systems technologies to host and deliver your services around the world. The services shown here are a subset of all the services covered in the second and third course of this series. The courses in this series build on each other; therefore, I strongly recommend that you take them in order.

The first course of this series is “Google Cloud Fundamentals: Core Infrastructure,” which I have linked in the slides: https://google.qwiklabs.com/courses/870

Networking in Google Cloud: Defining and Implementing Networks

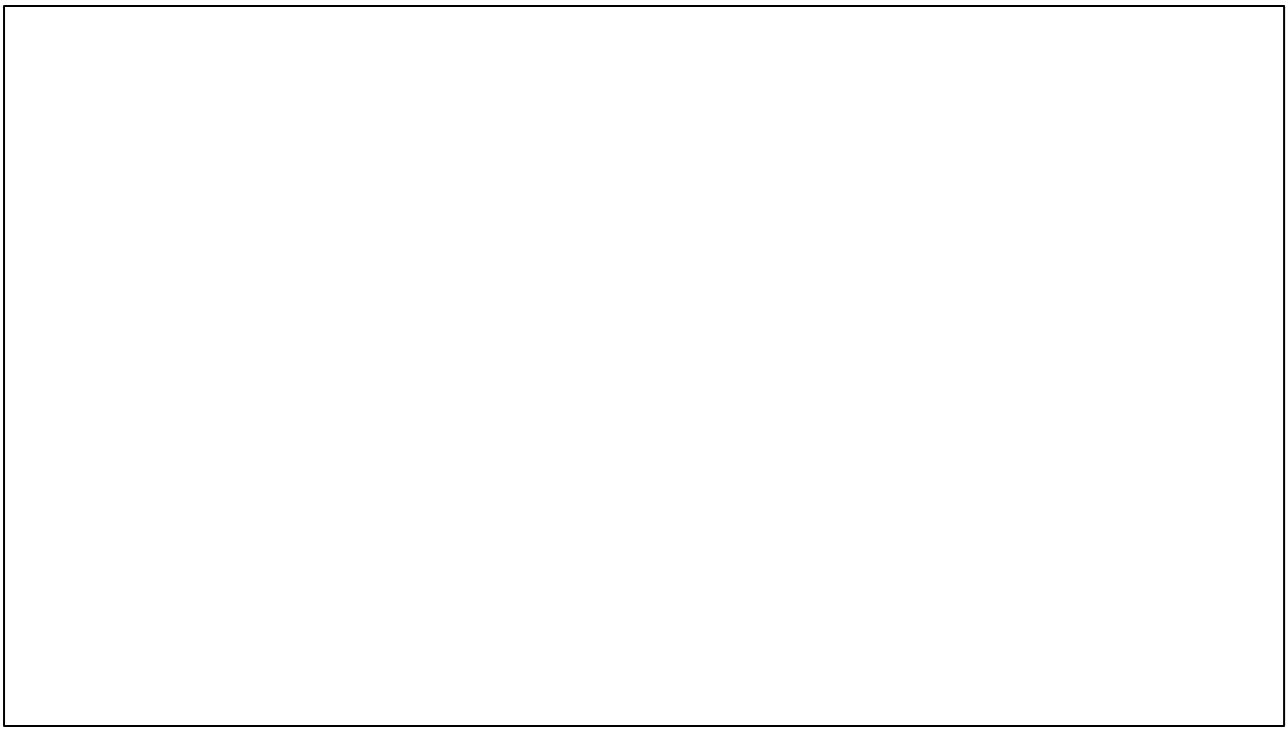
1. Google Cloud VPC Networking Fundamentals
2. Controlling Access to VPC Networks
3. Sharing Networks across Projects
4. Load Balancing

“Defining and Implementing Networks” is the second course of this series.

In that course, we start by going over the fundamentals of networking in Google Cloud by focusing on VPC networks, subnets, and firewall rules.
Next, you will learn how to control access to VPC networks.
Then, we will go over how to share VPC networks across projects.
Last, you will explore the different load balancing services in Google Cloud.

“Hybrid Connectivity and Network Management” is the third and final course of this series.

In that course, you will first learn about hybrid connectivity among networks.
Next, we will cover networking pricing and billing to help you optimize your network spend.
Then, you will explore common network design patterns and the automated deployment of networks using Deployment Manager and Terraform.
Last, we will go over monitoring and logging features that can help you troubleshoot your Google Cloud network infrastructure.



Now, my goal for you is to remember and understand the different networking services and features, and also be able to apply your knowledge, analyze requirements, evaluate different options, and create your own services.

That’s why this course series includes interactive hands-on labs through the Qwiklabs platform. Qwiklabs provisions you with Google account and credentials, so you can access the Cloud Console for each lab at no cost.