Google Cloud Platform - DNS Lab Architecture

Multi-Tier Web Application with Comprehensive Security & DNS Management

Internet / External Users

Global Access Point

Public DNS
example.com

Global HTTP(S) Load Balancer

Cloud Armor WAF • SSL Termination • CDN

IP: 34.102.136.180

Google Cloud Project

Project ID: your-gcp-project-id

Shared VPC Network

CIDR: 10.0.0.0/8 • Region: us-central1

Cloud NAT
Outbound Internet

Zone: us-central1-a

Zone: us-central1-b

Zone: us-central1-c

Web Tier Subnet

10.0.1.0/24 • us-central1-a,b,c

web-1	**web-2**
Nginx	Nginx
10.0.1.10	10.0.1.11

bastion
SSH Gateway

Application Tier Subnet

10.0.2.0/24 • us-central1-a,b,c

app-1	**app-2**
Node.js	Node.js
10.0.2.10	10.0.2.11

Database Tier Subnet

10.0.3.0/24 • us-central1-a

db-1
PostgreSQL 14
10.0.3.10

Google Cloud DNS Services

Private DNS Zone
internal.example.com
VPC-scoped resolution

Public DNS Zone
example.com
Internet-wide resolution

Security & Management Layer

VPC Firewall Rules	**IAM & Service Accounts**	**Cloud Ops Suite**	**Persistent Disks**

■ Network Infrastructure   ■ Compute Resources   ■ Data Flow   ■ Security Layer   ■ Management Services