

Virtual Private Cloud (VPC)

Global virtual network that spans all regions. Single VPC for an entire organization, isolated within projects. Increase IP space with no downtime.

New customers get \$300 in free credits to spend on VPC.

- Start using VPC networks with these [how-to-guides](#)
- [Network](#) of 34 regions, 103 zones in 200+ countries and territories with uptime of 99.99%
- Use a single VPC to span multiple regions without communicating across the public internet
- Learn more about what [customers](#) are saying about Google VPCs

Key features

VPC network

VPC can automatically set up your virtual topology, configuring prefix ranges for your subnets and network policies, or you can configure your own. You can also expand CIDR ranges without downtime.

VPC flow logs

Flow logs capture information about the IP traffic going to and from network interfaces on Compute Engine. VPC flow logs help with network monitoring, forensics, real-time security analysis, and expense optimization. Google Cloud flow logs are updated every five seconds, providing immediate visibility.

VPC Peering

[Configure private communication](#) across the same or different organizations without bandwidth bottlenecks or single points of failure.

Shared VPC

[Configure a VPC network to be shared](#) across several projects in your organization. Connectivity routes and firewalls associated are managed centrally. Your developers have their own projects with separate billing and quotas, while they simply connect to a shared private network where they can communicate.

Bring your own IPs

[Bring your own IP addresses](#) to Google's network across all regions to minimize downtime during migration and reduce your networking infrastructure cost. After you bring your own IPs, Google Cloud will advertise them globally to all peers. Your

prefixes can be broken into blocks as small as 16 addresses (/28), creating more flexibility with your resources.

All features

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VPC peering	Configure private communication across the same or different organizations without bandwidth bottlenecks or single points of failure.
Firewall	Segment your networks with a globally distributed firewall to restrict access to instances. VPC Firewall Rules Logging lets you audit, verify, and analyze the effects of your firewall rules. It logs firewall access and denies events with the same responsiveness of VPC flow logs.
Routes	Forward traffic from one instance to another instance within the same network, even across subnets, without requiring external IP addresses.

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Packet mirroring	Troubleshoot your existing VPCs by collecting and inspecting network traffic at scale, providing intrusion detection, application performance monitoring, and compliance controls with Packet Mirroring .
VPN	Securely connect your existing network to a VPC network over IPsec.
Private access	Get private access to Google services, such as storage, big data, analytics, or machine learning, without having to give your service a public IP address. Configure your application's front end to receive internet requests and shield your backend services from public endpoints, all while being able to access Google Cloud services.
VPC Service Controls	Mitigate data exfiltration risks by enforcing a security perimeter to isolate resources of multi-tenant Google Cloud services. Configure private communications between cloud resources from VPC networks spanning cloud and on-premise deployments. Keep sensitive data private and take advantage of the fully managed storage and data processing capabilities.