

[Compute Engine](https://cloud.google.com/compute/) (https://cloud.google.com/compute/) > [Documentation](https://cloud.google.com/compute/all-pricing) (https://cloud.google.com/compute/all-pricing)

All pricing

This page lists all the pricing for Compute Engine. For detailed pricing explanations, see the following pages:

- [VM instance pricing](https://cloud.google.com/compute/vm-instance-pricing) (https://cloud.google.com/compute/vm-instance-pricing)
- [Networking pricing](https://cloud.google.com/compute/network-pricing) (https://cloud.google.com/compute/network-pricing)
- [Sole-tenant nodes pricing](https://cloud.google.com/compute/sole-tenant-pricing) (https://cloud.google.com/compute/sole-tenant-pricing)
- [GPUs pricing](https://cloud.google.com/compute/gpus-pricing) (https://cloud.google.com/compute/gpus-pricing)
- [Disks and images pricing](https://cloud.google.com/compute/disks-image-pricing) (https://cloud.google.com/compute/disks-image-pricing)

Google Compute Engine charges for usage based on the following price sheet. A bill is sent out at the end of each billing cycle, listing previous usage and charges. Prices on this page are listed in US dollars (USD).

For Compute Engine, disk size, machine type memory, and network usage are calculated in gigabytes (GB), where 1 GB is 2^{30} bytes. This unit of measurement is also known as a [gibibyte \(GiB\)](https://wikipedia.org/wiki/Gibibyte) (https://wikipedia.org/wiki/Gibibyte).

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (https://cloud.google.com/skus/) apply.

You can also find pricing information with the following options:

- See the estimated costs of your instances and Compute Engine resources when you create them in the [Google Cloud Platform Console](https://console.cloud.google.com/) (https://console.cloud.google.com/).
- Estimate your total project costs with the [Google Cloud Pricing Calculator](https://cloud.google.com/products/calculator/) (https://cloud.google.com/products/calculator/).

General-purpose machine types

N2 machine types

Iowa (us-central1)



Monthly



Hourly

Item	On-demand price	Preemptible price	1 year commitment price	3 year commitment price
Predefined vCPUs	\$0.031611 / vCPU hour	\$0.00765 / vCPU hour	\$0.019915 / vCPU hour	\$0.014225 / vCPU hour
Predefined Memory	\$0.004237 / GB hour	\$0.00103 / GB hour	\$0.002669 / GB hour	\$0.001907 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: On-demand monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N2 standard machine types

Iowa (us-central1)



Monthly



Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n2-standard-2	2	8GB	\$0.0971	\$0.0235
n2-standard-4	4	16GB	\$0.1942	\$0.0470
n2-standard-8	8	32GB	\$0.3885	\$0.0940
n2-standard-16	16	64GB	\$0.7769	\$0.1880

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n2-standard-32	32	128GB	\$1.5539	\$0.3760
n2-standard-48	48	192GB	\$2.3308	\$0.5640
n2-standard-64	64	256GB	\$3.1078	\$0.7520
n2-standard-80	80	320GB	\$3.8847	\$0.9400
<u>Custom machine type</u> (#custommachinetypepricing)	If your ideal machine shape is in between two predefined types, using a custom machine type could save you as much as 40%. For more information, see <u>Custom vCPU and memory</u> (#custommachinetypepricing).			

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N2 high-memory machine types

Iowa (us-central1)



Monthly



Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n2-highmem-2	2	16GB	\$0.1310	\$0.0317

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n2-highmem-4	4	32GB	\$0.2620	\$0.0634
n2-highmem-8	8	64GB	\$0.5241	\$0.1268
n2-highmem-16	16	128GB	\$1.0481	\$0.2536
n2-highmem-32	32	256GB	\$2.0962	\$0.5073
n2-highmem-48	48	384GB	\$3.1443	\$0.7609
n2-highmem-64	64	512GB	\$4.1924	\$1.0145
n2-highmem-80	80	640GB	\$5.2406	\$1.2681
<u>Custom machine type</u> (#custommachinetypepricing)	If your ideal machine shape is in between two predefined types, using a custom machine type could save you as much as 40%. For more information, see <u>Custom vCPU and memory</u> (#custommachinetypepricing).			

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N2 high-CPU machine types

Iowa (us-central1)



Monthly



Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n2-highcpu-2	2	2GB	\$0.0717	\$0.0173
n2-highcpu-4	4	4GB	\$0.1434	\$0.0347
n2-highcpu-8	8	8GB	\$0.2868	\$0.0694
n2-highcpu-16	16	16GB	\$0.5736	\$0.1388
n2-highcpu-32	32	32GB	\$1.1471	\$0.2776
n2-highcpu-48	48	48GB	\$1.7207	\$0.4164
n2-highcpu-64	64	64GB	\$2.2943	\$0.5552
n2-highcpu-80	80	80GB	\$2.8678	\$0.6940
<u>Custom machine type</u> (#custommachinetypepricing)	If your ideal machine shape is in between two predefined types, using a custom machine type could save you as much as 40%. For more information, <u>Custom vCPUs and memory</u> (#custommachinetypepricing).			

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N2 custom vCPUs and memory

Iowa (us-central1)



Monthly



Hourly

Item	On-demand price	Preemptible price	1 year commitment price	3 year commitment price
Custom vCPUs	\$0.033174 / vCPU hour	\$0.00802 / vCPU hour	\$0.019915 / vCPU hour	\$0.014225 / vCPU hour
Custom Memory	\$0.004446 / GB hour	\$0.00108 / GB hour	\$0.002669 / GB hour	\$0.001907 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: On-demand monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N2 extended custom memory

Iowa (us-central1)



Monthly



Hourly

Item	Price (USD)	Preemptible price (USD)
Extended custom memory	\$0.009550 / GB hour	\$0.002310 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

N1 machine types

Iowa (us-central1) ▼

Monthly

☐ Hourly

Item	On-demand price	Preemptible price	1 year commitment price	3 year commitment price
Predefined vCPUs	\$0.031611 / vCPU hour	\$0.006655 / vCPU hour	\$0.019915 / vCPU hour	\$0.014225 / vCPU hour
Predefined Memory	\$0.004237 / GB hour	\$0.000892 / GB hour	\$0.002669 / GB hour	\$0.001907 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: On-demand monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N1 standard machine types

Iowa (us-central1) ▼

Monthly

☐ Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n1-standard-1	1	3.75GB	\$0.0475	\$0.0100
n1-standard-2	2	7.5GB	\$0.0950	\$0.0200
n1-standard-4	4	15GB	\$0.1900	\$0.0400

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n1-standard-8	8	30GB	\$0.3800	\$0.0800
n1-standard-16	16	60GB	\$0.7600	\$0.1600
n1-standard-32	32	120GB	\$1.5200	\$0.3200
n1-standard-64	64	240GB	\$3.0400	\$0.6400
n1-standard-96 <u>Skylake Platform only.</u> (https://cloud.google.com/compute/docs/cpu-platforms)	96	360GB	\$4.5600	\$0.9600
<u>Custom machine type</u> (#custommachinetypepricing)	If your ideal machine shape is in between two predefined types, using a custom machine type could save you as much as 40%. Read more about <u>Custom Machine Types</u> (#custommachinetypepricing).			

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](#) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](#) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N1 high-memory machine types

Iowa (us-central1)



Monthly



Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n1-highmem-2	2	13GB	\$0.1184	\$0.0250
n1-highmem-4	4	26GB	\$0.2368	\$0.0500
n1-highmem-8	8	52GB	\$0.4736	\$0.1000
n1-highmem-16	16	104GB	\$0.9472	\$0.2000
n1-highmem-32	32	208GB	\$1.8944	\$0.4000
n1-highmem-64	64	416GB	\$3.7888	\$0.8000
n1-highmem-96 Skylake Platform only (https://cloud.google.com/compute/docs/cpu-platforms)	96	624GB	\$5.6832	\$1.2000
<u>Custom machine type</u> (#custommachinetypepricing)	If your ideal machine shape is in between two predefined types, using a custom machine type could save you as much as 40%. Read more about <u>Custom Machine Types</u> (#custommachinetypepricing).			

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N1 high-CPU machine types

Iowa (us-central1)

Monthly

Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n1-highcpu-2	2	1.80GB	\$0.0709	\$0.0150
n1-highcpu-4	4	3.60GB	\$0.1418	\$0.0300
n1-highcpu-8	8	7.20GB	\$0.2836	\$0.0600
n1-highcpu-16	16	14.40GB	\$0.5672	\$0.1200
n1-highcpu-32	32	28.80GB	\$1.1344	\$0.2400
n1-highcpu-64	64	57.6GB	\$2.2688	\$0.4800
n1-highcpu-96 <u>Skylake Platform only.</u> (https://cloud.google.com/compute/docs/cpu-platforms)	96	86.4GB	\$3.402	\$0.7200
<u>Custom machine type</u> (#custommachinetypepricing)	If your ideal machine shape is in between two predefined types, using a custom machine type could save you as much as 40%. Read more about <u>Custom Machine Types</u> (#custommachinetypepricing).			

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](#) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](#) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N1 custom vCPUs and memory

Iowa (us-central1) ▼

Monthly

☐ Hourly

Item	On-demand price	Preemptible price	1 year commitment price	3 year commitment price
Custom vCPUs	\$0.033174 / vCPU hour	\$0.00698 / vCPU hour	\$0.019915 / vCPU hour	\$0.014225 / vCPU hour
Custom Memory	\$0.004446 / GB hour	\$0.00094 / GB hour	\$0.002669 / GB hour	\$0.001907 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: On-demand monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

N1 extended custom memory

Iowa (us-central1) ▼

Monthly

☐ Hourly

Item	Price (USD)	Preemptible price (USD)
Extended custom memory	\$0.009550 / GB hour	\$0.002014 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Memory-optimized machine types

vCPUs and memory

Iowa (us-central1)



Monthly



Hourly

Item	On-demand price	Preemptible price	1 year commitment price	3 year commitment price
Memory-optimized vCPUs	\$0.0348 / vCPU hour	\$0.00733 / vCPU hour	\$0.02055 / vCPU hour	\$0.01045 / vCPU hour
Memory-optimized Memory	\$0.0051 / GB hour	\$0.00108 / GB hour	\$0.00302 / GB hour	\$0.00153 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: On-demand monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

Predefined memory-optimized machine types

Iowa (us-central1)



Monthly



Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n1-ultramem-40	40	961GB	\$6.3039	\$1.3311

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n1-ultramem-80	80	1922GB	\$12.6078	\$2.6622
n1-ultramem-160	160	3844GB	\$25.2156	\$5.3244

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n1-megamem-96	96	1433.6GB	\$10.6740	\$2.2600

Committed Use Discounts apply to memory-optimized machine types only if you buy the commitment type specifically for memory-optimized machine types. If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

Larger memory-optimized machine types

Iowa (us-central1)



Monthly



Hourly

Machine type	Virtual CPUs	Memory	Evaluative price (USD)	Preemptible price (USD)	1 year commitment price	3 year comm price
m2-ultramem-208	208	5888GB	\$42.186	Not available in this region	\$25.453	\$14.57

Machine type	Virtual CPUs	Memory	Evaluative price (USD)	Preemptible price (USD)	1 year commitment price	3 year comm price
m2-ultramem-416	416	11776GB	\$84.371	Not available in this region	\$50.907	\$32.16

Compute-optimized machine types

C2 vCPUs and memory

Iowa (us-central1)



Monthly



Hourly

Item	On-demand price	Preemptible price	1 year commitment price	3 year commitment price
Compute-optimized vCPUs	\$0.03398 / vCPU hour	\$0.00822 / vCPU hour	\$0.02141 / vCPU hour	\$0.01359 / vCPU hour
Compute-optimized Memory	\$0.00455 / GB hour	\$0.001100 / GB hour	\$0.00287 / GB hour	\$0.00182 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: On-demand monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

C2 machine types

Iowa (us-central1)



Monthly



Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
c2-standard-4	4	16	\$0.2088	\$0.0505
c2-standard-8	8	32	\$0.4176	\$0.1011
c2-standard-16	16	64	\$0.8352	\$0.2021
c2-standard-30	30	120	\$1.5660	\$0.3790
c2-standard-60	60	240	\$3.1321	\$0.7579

Shared-core machine types

Iowa (us-central1)



Monthly



Hourly

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
f1-micro	1	0.60GB	\$0.0076	\$0.0035
g1-small	1	1.70GB	\$0.0257	\$0.0070

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

Premium images

Red Hat Enterprise Linux (RHEL) and RHEL for SAP images

RHEL images:

- **\$0.06 USD/hour** for instances with 4 or fewer vCPUs
- **\$0.13 USD/hour** for instances with more than 4 vCPUs

RHEL for SAP with HA and Update Services images:

- **\$0.10 USD/hour** for instances with 4 or fewer vCPUs
- **\$0.225 USD/hour** for instances with more than 4 vCPUs

All RHEL and RHEL for SAP images are charged a **1 minute** minimum. After 1 minute, RHEL images are charged in **1 second increments**.

Google reports your billing entity name and total hours of Red Hat premium OS usage on Compute Engine to Red Hat, which complies with the Red Hat licensing requirements.

SLES images and SLES for SAP images

SLES images:

- **\$0.02 USD/hour** for f1-micro and g1-small machine types
- **\$0.11 USD/hour** for all other machine types

SLES for SAP images:

- **\$0.17 USD/hour** for instances with 1 - 2 vCPUs
- **\$0.34 USD/hour** for instances with 3 - 4 vCPUs
- **\$0.41 USD/hour** for instances with 5 or more vCPUs

All SLES images are charged a **1 minute** minimum. After 1 minute, SLES images are charged in **1 second increments**.

Windows Server images

Public images for several versions of Windows Server are available in either the Server Core configuration or the Server with Desktop Experience configuration. Both configurations are available at the following prices:

- **\$0.02 USD/hour** for f1-micro and g1-small machine types
- **\$0.04 USD per core/hour** for all other machine types

Standard machine types, high-CPU machine types, and high-memory machine types are charged based on the number of CPUs. For example, n1-standard-4, n1-highcpu-4, and n1-highmem-4 are machine-types with 4 vCPUs, and are charged at \$0.16 USD/hour (4 x \$0.04 USD/hour).

Windows Server images are charged a **1 minute minimum**. After 1 minute, Windows images are charged in **1 second increments**. SQL Server images (#sql_server_pricing) are charged a **10 minute minimum**. After 10 minutes, SQL Server images are charged in **1 minute increments**.

SQL Server images

SQL Server images incur costs in addition to the cost for Windows Server images (#windows_server_pricing) and the cost for the selected machine type.

- **\$0.399 USD per core/hour** for SQL Server Enterprise
- **\$0.1645 USD per core/hour** for SQL Server Standard
- **\$0.011 USD per core/hour** for SQL Server Web
- No additional charge for SQL Server Express

Microsoft SQL Server licensing requires a core license to be assigned to each virtual CPU on your virtual machine instance, with a four core minimum for each instance. Instances with fewer than 4 vCPUs will be charged for SQL Server at 4 x \$0.1645 USD/hour (\$0.658 USD/hour) to comply with these requirements. For instances with 4 or more vCPUs, Compute Engine charges you for Microsoft SQL Server licenses in increments of 2. However, instances with a custom machine type

(<https://cloud.google.com/compute/docs/instances/creating-instance-with-custom-machine-type>) will be charged for the number of SQL Server licenses that is equal to the number of vCPUs.

Google recommends that you do not use SQL Server images on `f1-micro` or `g1-small` machine types based on Microsoft's [minimum hardware and software recommendations](https://msdn.microsoft.com/en-us/library/ms143506.aspx) (<https://msdn.microsoft.com/en-us/library/ms143506.aspx>).

Unlike other premium images, SQL Server images are charged a **10 minute minimum**. After 10 minutes, SQL Server images are charged in **1 minute increments**.

Disk pricing

Persistent disk pricing

Iowa (us-central1)

Type	Price (per GB / month)
Standard provisioned space	\$0.040
SSD provisioned space	\$0.170
Regional standard provisioned space	\$0.080
Regional SSD provisioned space ** (Promo pricing ends July 31, 2019) **	\$0.240 (\$0.340 after promo)
Snapshot storage	\$0.026
Multi-regional snapshot storage	\$0.026 in each multi-region
<u>IO operations</u> (https://cloud.google.com/compute/docs/disks/#pdspeccs)	No additional charge

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Local SSD pricing

Iowa (us-central1) ▼

Monthly

☐ Hourly

Type	Price (per GB / month)	Preemptible price (per GB / month)	Estimated * cost per device**	1 year commitment price (per GB)	3 year commitment price (per GB)
Local SSD provisioned space	\$0.080	\$0.048	\$0.041	\$0.051 USD	\$0.036 USD

*Based on a 730 hour month on standard (non-preemptible) rate; actual monthly costs may vary.

**Local SSD devices are only offered in one size, at 375 GB per device.

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Network pricing

General network pricing

Traffic type	Price
Ingress	No charge, unless there is a resource such as a load balancer (#lb) that is processing ingress traffic. Responses to requests count as egress and are charged.

Traffic type	Price
Egress ¹ (#footnote-1) to the same zone	No charge
Egress to Google products (such as YouTube, Maps, Drive), whether from a VM in GCP with an external IP address or an <u>internal IP address</u> (https://cloud.google.com/compute/docs/private-google-access/private-google-access)	No charge
Egress to <u>DoubleClick in the same region</u> (https://developers.google.com/authorized-buyers/rtb/peer-guide#trading_locations)	No charge
Egress to a different Google Cloud Platform service within the same region using an external IP address or an <u>internal IP address</u> (https://cloud.google.com/compute/docs/private-google-access/private-google-access) , except for Cloud Memorystore for Redis, Cloud Filestore, and Cloud SQL	No charge
Egress ² (#footnote-2) between zones in the same region (per GB)	\$0.01
Egress to <u>Cloud Memorystore for Redis</u> (https://cloud.google.com/memorystore/docs/redis/) is charged at the rate of "Egress between zones in the same region"	
Egress to <u>Cloud Filestore</u> (https://cloud.google.com/filestore/docs/) is charged at the rate of "Egress between zones in the same region"	
Egress to <u>Cloud SQL</u> (https://cloud.google.com/sql/docs/) is charged at the rates described in <u>Traffic through external IP addresses</u> (#externaliptraffic)	

Traffic type	Price
Egress between regions within the US and Canada (per GB)	\$0.01
Egress between regions within Europe (per GB)	\$0.02
Egress between regions within Asia (per GB)	\$0.05
Egress between regions within South America (per GB)	\$0.08
Intercontinental egress (excludes Oceania) (per GB)	\$0.08
Oceania ³ (#footnote-3) to/from any region (per GB)	\$0.15

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

¹These charges are for egress through [internal IP addresses](https://cloud.google.com/compute/docs/ip-addresses#networkaddresses) (<https://cloud.google.com/compute/docs/ip-addresses#networkaddresses>). There are different [charges](https://cloud.google.com/compute/docs/ip-addresses#externaladdresses) (#externaliptraffic) for egress through [external IP addresses](https://cloud.google.com/compute/docs/ip-addresses#externaladdresses) (<https://cloud.google.com/compute/docs/ip-addresses#externaladdresses>), regardless of whether the instances are in the same zone. The prices are used regardless of network or subnet. The price for traffic within a zone using internal IP addresses is the same even if the traffic is to a different subnet or network. The price on traffic between zones in the same region is the same if the two instances are in the same subnet, different subnets, or different networks. Pricing is the same whether the instances are in a VPC network or a legacy network.

²Promotional pricing.

³ Oceania includes Australia, New Zealand, and surrounding Pacific Ocean islands such as Papua New Guinea and Fiji. This region excludes Hawaii.

Internet egress rates*

Iowa (us-central1)



Monthly Usage	Network (Egress)	Network (Egress)	Network (Egress)	Network (Ingress)
	Worldwide Destinations (excluding China & Australia, but including Hong Kong) (per GB)	China Destinations (excluding Hong Kong) (per GB)	Australia Destinations (per GB)	
0-1 TB	\$0.12	\$0.23	\$0.19	Free
1-10 TB	\$0.11	\$0.22	\$0.18	Free
10+ TB	\$0.08	\$0.20	\$0.15	Free

Note: The monthly usage is counted by each SKU, while the "Worldwide Destinations" may contain multiple SKUs. For more details please refer [Cloud Platform SKUs](https://cloud.google.com/skus/?currency=USD&filter=compute%20engine%20network%20google%20egress) (<https://cloud.google.com/skus/?currency=USD&filter=compute%20engine%20network%20google%20egress>)

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

*These rates do not apply for [Cloud CDN](https://cloud.google.com/cdn) (<https://cloud.google.com/cdn>), [CDN Interconnect](https://cloud.google.com/interconnect/docs/how-to/cdn-interconnect) (<https://cloud.google.com/interconnect/docs/how-to/cdn-interconnect>), [Carrier Peering](https://cloud.google.com/interconnect/docs/how-to/carrier-peering) (<https://cloud.google.com/interconnect/docs/how-to/carrier-peering>), [Direct Peering](https://cloud.google.com/interconnect/docs/how-to/direct-peering) (<https://cloud.google.com/interconnect/docs/how-to/direct-peering>), and [Cloud Interconnect](https://cloud.google.com/interconnect/docs) (<https://cloud.google.com/interconnect/docs>) traffic. Instead, see pricing for [Cloud CDN](https://cloud.google.com/cdn/pricing) (<https://cloud.google.com/cdn/pricing>), [CDN Interconnect](https://cloud.google.com/interconnect/docs/how-to/cdn-interconnect#pricing) (<https://cloud.google.com/interconnect/docs/how-to/cdn-interconnect#pricing>), [Carrier Peering](https://cloud.google.com/interconnect/docs/how-to/carrier-peering#pricing) (<https://cloud.google.com/interconnect/docs/how-to/carrier-peering#pricing>), [Direct Peering](https://cloud.google.com/interconnect/docs/how-to/direct-peering#pricing) (<https://cloud.google.com/interconnect/docs/how-to/direct-peering#pricing>), or [Cloud Interconnect](https://cloud.google.com/interconnect/pricing) (<https://cloud.google.com/interconnect/pricing>).

Load balancing and forwarding rules

The following applies to all types of load balancing and forwarding rules (protocol forwarding).

Iowa (us-central1)

Item	Price per Unit (USD)	Pricing Unit
First 5 forwarding rules	\$0.025	Per Hour
Per additional forwarding rule	\$0.010	Per Hour
Ingress data processed by load balancer	\$0.008	Per GB

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Load balancing ingress and egress charges

- The Load balancing and forwarding table above contains the charge for ingress data processed by load balancers.
- Normal egress rates are charged for traffic outbound from a load balancer.
- There is no additional load balancer egress cost beyond normal egress rates.

Forwarding rules charges

Compute Engine charges for forwarding rules that are created for [load balancing](https://cloud.google.com/compute/docs/load-balancing) (<https://cloud.google.com/compute/docs/load-balancing>) or other uses of [forwarding rules](https://cloud.google.com/vpc/docs/forwarding-rules) (<https://cloud.google.com/vpc/docs/forwarding-rules>).

The following examples use US pricing:

Up to 5 forwarding rules you create are charged at \$0.025/hour. For example, if you create one forwarding rule, you will be charged \$0.025/hour. If you have 3 forwarding rules, you will still be charged \$0.025/hour. However, if you have 10 rules, you will be charged:

- 5 forwarding rules = \$0.025/hour
- Each additional forwarding rule = \$0.01/hour

$\$0.025/\text{hour for 5 rules} + (5 \text{ additional rules} * \$0.01/\text{hour}) = \$0.075/\text{hour}$

User-defined request headers and Google Cloud Armor charges

Beta

This is a Beta release of user-defined request headers. This feature is not covered by any SLA or deprecation policy and might be subject to backward-incompatible changes.

If a backend service has a Google Cloud Armor policy associated with it, you can use the user-defined request headers feature with that backend service without any additional charge for the user-defined request headers feature.

If a backend service does **not** have a Google Cloud Armor policy associated with it, the charges are \$0.75 per million HTTP(S) requests sent to those backend services that use the user-defined request headers feature.

These charges become effective after the user-defined request headers feature becomes available in General Availability (GA).

Network Telemetry

Network logs generate charges. You are charged for the following products:

- VPC flow logs
- firewall rule logs
- NAT logging (starting at NAT logging GA. No charge for logs generation during beta.)

Log generation	Price
0–10 TB per month	0.50/GB

Log generation	Price
10–30 TB per month	0.25/GB
30–50 TB per month	0.10/GB
>50 TB per month	0.05/GB

Logs can be exported to Stackdriver Logging, Cloud Pub/Sub, Cloud Storage, or BigQuery. Cloud Pub/Sub, Cloud Storage, or BigQuery charges apply in addition to log generation charges.

If you send your logs to Stackdriver Logging, logs generation charges are waived, and only Stackdriver Logging charges apply.

If you send and then exclude your logs from Stackdriver Logging, log generation charges apply.

Traffic through external IP addresses

When you send traffic between virtual machines through the external IP addresses, it will be charged as follows:

- Traffic sent between the external IP address of two virtual machines in the same region will be charged as **Egress between zones in the same region** (#general), even if the virtual machines are in the same zone.
- Traffic sent between the external IP address of two virtual machines in different regions within the US will be charged as **Egress between regions within the US** (#general).
- Traffic sent between the external IP address of two virtual machines in different regions, not including traffic between US regions, will be charged at **Internet Egress pricing** (#internet_egress).

It is not possible to charge traffic through the external IP address of two virtual machine instances in the same zone as **Egress to the same zone** because Compute Engine cannot determine the zone of a virtual machine through the external IP address.

VPN

Cloud VPN pricing is based on the location of the Cloud VPN gateway and the number of tunnels per hour.

For definitions of Classic VPN and HA VPN, see the [Cloud VPN overview](#).

(<https://cloud.google.com/vpn/docs/concepts/overview>)

Note: Only VPN tunnels in [these tunnel states](#)

(https://cloud.google.com/vpn/docs/resources/troubleshooting#message_list) are billed.

Classic VPN pricing

Select the location of the VPN gateway in Google Cloud Platform to view pricing.

Iowa (us-central1)

Component Billed	Price (USD)
Per tunnel (per hour)	\$0.050
IPsec traffic	Charged as if the traffic were regular egress traffic. If the Cloud VPN tunnel connects to a gateway in GCP, egress pricing to the region containing that gateway applies. See General network pricing (https://cloud.google.com/compute/network-pricing#general). If the Cloud VPN tunnel connects to a gateway outside of GCP, Internet egress rates (https://cloud.google.com/compute/network-pricing#internet_egress) apply.
Public IP for VPN Gateway	Charged according to IP address pricing (https://cloud.google.com/compute/network-pricing#ipaddress).

Google does not charge for forwarding rules that send traffic to the VPN gateway.

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

HA VPN pricing at Beta

Beta

This is a Beta release of HA VPN Regional. This feature is not covered by any SLA or deprecation policy and might be subject to backward-incompatible changes.

The pricing below applies during the HA VPN Beta period.

Note: Pricing at HA VPN General Availability will be the [same pricing \(#classic-pricing\)](#) as for Classic VPN, except that you will be charged for two tunnels, because HA VPN requires that you create two tunnels to achieve 99.99% availability.

Component Billed	Price (USD)
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Per VPN tunnel (per hour)	No charge
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Public IP for VPN gateway	No charge
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IPsec traffic	Charged as if the traffic were regular egress traffic. If the Cloud VPN tunnel connects to a gateway in GCP, egress pricing to the region containing that gateway applies. See General network pricing (https://cloud.google.com/compute/network-pricing#general). If the Cloud VPN tunnel connects to a gateway outside of GCP, internet egress rates apply. (https://cloud.google.com/compute/network-pricing#internet_egress)
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Cloud Router pricing

See the [Cloud Router pricing page](https://cloud.google.com/router/pricing) (<https://cloud.google.com/router/pricing>).

Unused IP address pricing

If you reserve a [static external IP address](https://cloud.google.com/compute/docs/ip-addresses/reserve-static-external-ip-address#reserve_new_static) (https://cloud.google.com/compute/docs/ip-addresses/reserve-static-external-ip-address#reserve_new_static)

but do not use it, you will be charged for the IP address according to the table below. If you reserve a static external IP address and use it with a Compute Engine resource, such as VM instance or a forwarding rule, the address is considered in use and you will not be charged for it.

Iowa (us-central1) ▼

Type	Price/Hour
Static IP address (assigned but unused)	\$0.010
Static IP address (assigned and in use)	No charge
Ephemeral IP address (attached to instance or forwarding rule)	No charge

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Sole-tenant vCPU, memory, and premium costs

Iowa (us-central1) ▼ Monthly ☒ Hourly

	vCPUs	Memory
Base price	\$0.031611 / vCPU hour	\$0.004237 / GB hour
Premium 10% cost	\$0.0031611 / vCPU hour	\$0.0004237 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

Calculating sole-tenancy pricing including discounts

Iowa (us-central1)



Monthly



Hourly

Item	Price (USD)	1 year commitment price (USD)	3 year commitment price (USD)
Total cost per vCPU	\$0.0347721 / vCPU hour	\$0.0230761 / vCPU hour	\$0.0173861 / vCPU hour
Total cost per GB of memory	\$0.0046607 / GB hour	\$0.0030927 / GB hour	\$0.0023307 / GB hour

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

GPU pricing

Iowa (us-central1)



Monthly



Hourly

Model	GPUs	GPU memory	GPU price	Preemptible GPU price	1 year committed price
<u>NVIDIA® Tesla® T4</u> (https://www.nvidia.com/en-us/data-center/tesla-t4/)	1 GPU	16 GB GDDR6	\$0.95 USD per GPU	\$0.29 USD per GPU	\$0.60 per GPU
	2 GPUs	32 GB GDDR6			
	4 GPUs	64 GB GDDR6			
<u>NVIDIA® Tesla® P4</u> (https://www.nvidia.com/en-us/deep-learning-ai/inference-platform/hpc/)	1 GPU	8 GB GDDR5	\$0.60 USD per GPU	\$0.216 USD per GPU	\$0.37 per GPU
	2 GPUs	16 GB GDDR5			
	4 GPUs	32 GB GDDR5			
<u>NVIDIA® Tesla® V100</u> (https://www.nvidia.com/en-us/data-center/tesla-v100/)	1 GPU	16 GB HBM2	\$2.48 USD per GPU	\$0.74 USD per GPU	\$1.56 per GPU
	2 GPUs	32 GB HBM2			

Model	GPUs	GPU memory	GPU price	Preemptible GPU price	1 year committed price
	4 GPUs	64 GB HBM2			
	8 GPUs	128 GB HBM2			
<u>NVIDIA® Tesla® P100</u> (https://www.nvidia.com/object/tesla-p100.html)	1 GPU	16 GB HBM2	\$1.46 USD per GPU	\$0.43 USD per GPU	\$0.91 per GPU
	2 GPUs	32 GB HBM2			
	4 GPUs	64 GB HBM2			
<u>NVIDIA® Tesla® K80</u> (https://www.nvidia.com/en-gb/data-center/tesla-k80/)	1 GPU	12 GB GDDR5	\$0.45 USD per GPU	\$0.135 USD per GPU	\$0.28 per GPU
	2 GPUs	24 GB GDDR5			
	4 GPUs	48 GB GDDR5			
	8 GPUs	96 GB GDDR5			
NVIDIA® GRID® Virtual Workstation GPUs					

Model	GPUs	GPU memory	GPU price	Preemptible GPU price	1 year committed price
<u>NVIDIA® Tesla® T4 Virtual Workstation</u> (https://www.nvidia.com/en-us/design-visualization/technologies/virtual-gpu/)	1 GPU	16 GB GDDR6	\$1.15 USD per GPU	\$0.49 USD per GPU	\$0.80 GPU
	2 GPUs	32 GB GDDR6			
	4 GPUs	64 GB GDDR6			
<u>NVIDIA® Tesla® P4 Virtual Workstation</u> (https://www.nvidia.com/en-us/design-visualization/technologies/virtual-gpu/)	1 GPU	8 GB GDDR5	\$0.80 USD per GPU	\$0.416 USD per GPU	\$0.57 per GPU
	2 GPUs	16 GB GDDR5			
	4 GPUs	32 GB GDDR5			
<u>NVIDIA® Tesla® P100 Virtual Workstation</u> (https://www.nvidia.com/en-us/design-visualization/technologies/virtual-gpu/)	1 GPU	16 GB HBM2	\$1.66 USD per GPU	\$0.63 USD per GPU	\$1.11 per GPU
	2 GPUs	32 GB HBM2			
	4 GPUs	64 GB HBM2			

Note: NVIDIA® K80® boards contain two GPUs each. The pricing for K80 GPUs is by GPU, not by the board.

If you pay in a currency other than USD, the prices listed in your currency on [Cloud Platform SKUs](https://cloud.google.com/skus/) (<https://cloud.google.com/skus/>) apply.

Note: Listed monthly pricing includes applicable, automatic [sustained use discounts](https://cloud.google.com/compute/docs/sustained-use-discounts) (<https://cloud.google.com/compute/docs/sustained-use-discounts>), assuming that your instance or node runs for a 730 hour month.

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