



Instance Types

Amazon EC2



Amazon EC2: Instance Types

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Amazon EC2 instance types

End of sale notice

The **U-9tb1**, **U-12tb1**, **U-18tb1**, and **U-24tb1** instance types are no longer available for new instance launches. If your workload requires a high-memory instance, we recommend that you use a U7i instance type instead.

When you launch an EC2 instance, the *instance type* that you specify determines the hardware of the host computer used for your instance. Each instance type offers different compute, memory, and storage capabilities, and is grouped in an instance family based on these capabilities. Select an instance type based on the requirements of the application or software that you plan to run on your instance.

Amazon EC2 dedicates some resources of the host computer, such as CPU, memory, and instance storage, to a particular instance. Amazon EC2 shares other resources of the host computer, such as the network and the disk subsystem, among instances. If each instance on a host computer tries to use as much of one of these shared resources as possible, each receives an equal share of that resource. However, when a resource is underused, an instance can consume a higher share of that resource while it's available.

Each instance type provides higher or lower minimum performance from a shared resource. For example, instance types with high I/O performance have a larger allocation of shared resources. Allocating a larger share of shared resources also reduces the variance of I/O performance. For most applications, moderate I/O performance is more than enough. However, for applications that require greater or more consistent I/O performance, consider an instance type with higher I/O performance.

For pricing information, see [Amazon EC2 Pricing](#).

Topics

- [Current generation instances](#)
- [Previous generation instances](#)
- [Instance performance](#)

Current generation instances

For the best performance, we recommend that you use the following instance types when you launch new instances. For more information, see [Amazon EC2 Instance Types](#).

- **General purpose:** M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | M8gd | M8i | M8i-flex | Mac1 | Mac2 | Mac2-m1ultra | Mac2-m2 | Mac2-m2pro | T2 | T3 | T3a | T4g
- **Compute optimized:** C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7gn | C7i | C7i-flex | C8g | C8gd | C8gn
- **Memory optimized:** R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | R8gd | R8i | R8i-flex | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | U7i-6tb | U7i-8tb | U7i-12tb | U7in-16tb | U7in-24tb | U7in-32tb | U7inh-32tb | X1 | X1e | X2gd | X2idn | X2iedn | X2iezn | X8g | z1d
- **Storage optimized:** D2 | D3 | D3en | H1 | I3 | I3en | I4g | I4i | I7i | I7ie | I8g | I8ge | Im4gn | Is4gen
- **Accelerated computing:** DL1 | DL2q | F1 | F2 | G4ad | G4dn | G5 | G5g | G6 | G6e | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P3 | P3dn | P4d | P4de | P5 | P5e | P5en | P6-B200 | P6e-GB200 | Trn1 | Trn1n | Trn2 | Trn2u | VT1
- **High-performance computing:** Hpc6a | Hpc6id | Hpc7a | Hpc7g

Previous generation instances

Amazon Web Services offers previous generation instance types for users who have optimized their applications around them and have yet to upgrade. We encourage you to use current generation instance types to get the best performance, but we continue to support the following previous generation instance types. For more information about which current generation instance type would be a suitable upgrade, see [Previous Generation Instances](#).

- **General purpose:** A1 | M1 | M2 | M3 | M4 | T1
- **Compute optimized:** C1 | C3 | C4
- **Memory optimized:** R3 | R4
- **Storage optimized:** I2
- **Accelerated computing:** G3

Instance performance

Fixed performance instances

Fixed performance instances provide fixed CPU resources. These instances can deliver and sustain full CPU performance at any time, and for as long as a workload needs it. If you need consistently high CPU performance for applications such as video encoding, high volume websites, or HPC applications, we recommend that you use fixed performance instances.

Burstable performance instances

Burstable performance (T) instances provide a baseline level of CPU performance with the ability to burst above the baseline. The baseline CPU is designed to meet the needs of the majority of general purpose workloads, such as large-scale micro-services, web servers, small and medium databases, data logging, code repositories, virtual desktops, and development and test environments.

The baseline utilization and ability to burst are governed by CPU credits. Each burstable performance instance continuously earns credits when it stays below the CPU baseline, and continuously spends credits when it bursts above the baseline. For more information, see [Burstable performance instances](#) in the *Amazon EC2 User Guide*.

Flex instances

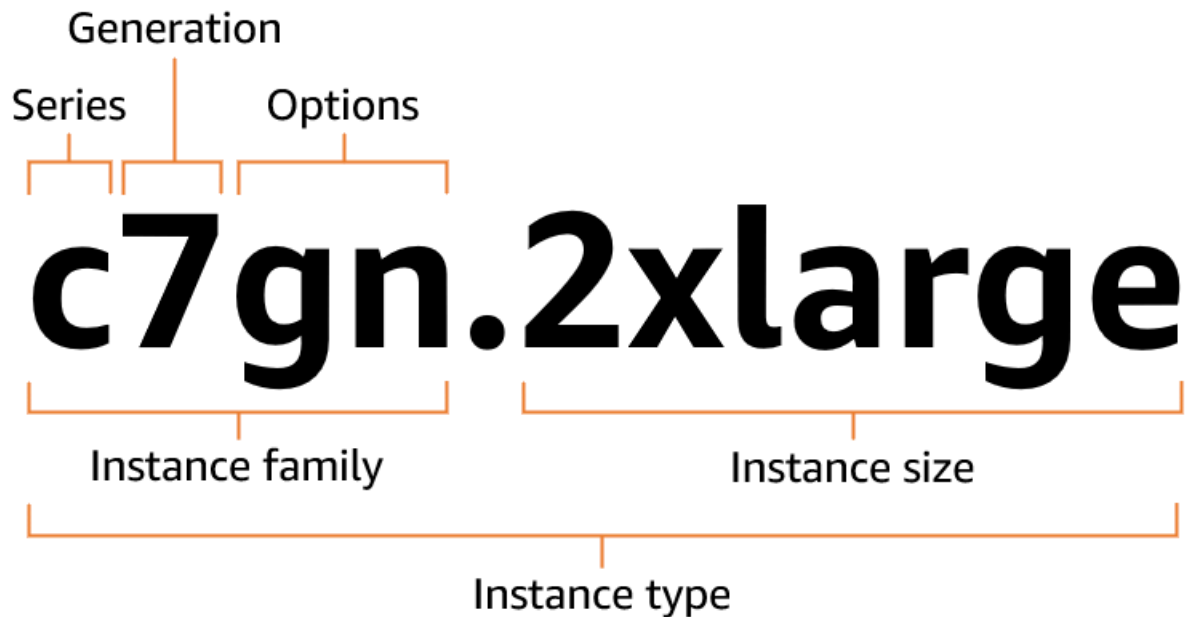
C7i-flex, M7i-flex, M8i-flex, and R8i-flex instances offer a balance of compute, memory, and network resources, and they provide the most cost-effective way to run a broad spectrum of general purpose applications. These instances provide reliable CPU resources to deliver a baseline CPU performance of 40 percent, which is designed to meet the compute requirements for a majority of general purpose workloads. When more performance is needed, these instances provide the ability to exceed the baseline CPU performance and deliver up to 100 percent CPU performance for 95 percent of the time over a 24-hour window.

Flex instances running at a high CPU utilization that is consistently above the baseline for long periods of time might see a gradual reduction in the maximum burst CPU throughput. For more information, see the following:

- [M7i-flex instances](#)
- [C7i-flex instances](#)
- [R7i-flex instances](#)

Amazon EC2 instance type naming conventions

Amazon EC2 provides a variety of instance types so you can choose the type that best meets your requirements. Instance types are named based on their *instance family* and *instance size*. The first position of the instance family indicates the *series*, for example c. The second position indicates the *generation*, for example 7. The third position indicates the *options*, for example gn. After the period (.) is the instance size, such as small or 4xlarge, or metal for bare metal instances.



Series	Options
• C – Compute optimized • D – Dense storage • F – FPGA • G – Graphics intensive • Hpc – High performance computing • I – Storage optimized • Im – Storage optimized (1 to 4 ratio of vCPU to memory) • Is – Storage optimized (1 to 6 ratio of vCPU to memory)	• a – AMD processors • b200 – Accelerated by NVIDIA Blackwell GPUs • g – AWS Graviton processors • i – Intel processors • m1ultra – Apple M1 Ultra chip • m2 – Apple M2 chip • m2pro – Apple M2 Pro chip • b – Block storage optimization • d – Instance store volumes

Series	Options
• Inf – AWS Inferentia • M – General purpose • Mac – macOS • P – GPU accelerated • R – Memory optimized • T – Burstable performance • Trn – AWS Trainium • U – High memory • VT – Video transcoding • X – Memory intensive • Z – High memory	• e – Extra storage (for storage optimized instance types), extra memory (for memory optimized instance types), or extra GPU memory (for accelerated computing instance types). • flex – Flex instance • n – Network and EBS optimized • q – Qualcomm inference accelerators • *tb – Amount of memory for high-memory instances (3 TiB to 32 TiB) • z – High CPU frequency

Amazon EC2 instance type specifications

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instance types comprise varying combinations of CPU, memory, storage, and networking capacity and give you the flexibility to choose the appropriate mix of resources for your applications. Each instance type includes one or more instance sizes, allowing you to scale your resources to the requirements of your target workload.

We group EC2 instance into the following categories:

- **General purpose** – Provide a balance of compute, memory, and networking resources. These instances are ideal for applications that use these resources in equal proportions, such as web servers and code repositories.

Burstable performance – The T instance family is also referred to as burstable performance instances. These instances provide a baseline CPU performance with the ability to burst above the baseline at any time. For more information, see [Burstable performance instances](#) in the *Amazon EC2 User Guide*.
- **Compute optimized** – Designed for compute intensive applications that benefit from high performance processors. These instances are ideal for batch processing workloads, media transcoding, high performance web servers, high performance computing (HPC), scientific modeling, dedicated gaming servers, ad server engines, and machine learning inference.
- **Memory optimized** – Designed to deliver fast performance for workloads that process large data sets in memory.
- **Storage optimized** – Designed for workloads that require high, sequential read and write access to very large data sets on local storage. They are optimized to deliver tens of thousands of low-latency, random I/O operations per second (IOPS) to applications.
- **Accelerated computing** – Use hardware accelerators, or co-processors, to perform functions, such as floating point number calculations, graphics processing, or data pattern matching, more efficiently than is possible in software running on CPUs.
- **High-performance computing** – Purpose built to offer the best price performance for running HPC workloads at scale on AWS. These instances are ideal for applications that benefit from high-performance processors, such as large, complex simulations and deep learning workloads.
- **Previous generation** – AWS offers previous generation instance types for users who have optimized their applications around them and have yet to upgrade. We encourage you to use

current generation instance types to get the best performance, but we continue to support previous generation instance types.

To determine which instance types meet your requirements, such as supported Regions, compute resources, or storage resources, see [Find an Amazon EC2 instance type](#) in the *Amazon EC2 User Guide*.

Categories

- [Specifications for Amazon EC2 general purpose instances](#)
- [Specifications for Amazon EC2 compute optimized instances](#)
- [Specifications for Amazon EC2 memory optimized instances](#)
- [Specifications for Amazon EC2 storage optimized instances](#)
- [Specifications for Amazon EC2 accelerated computing instances](#)
- [Specifications for Amazon EC2 high-performance computing instances](#)
- [Specifications for Amazon EC2 previous generation instances](#)

Pricing

For pricing information, see [Amazon EC2 On-Demand Pricing](#).

Specifications for Amazon EC2 general purpose instances

General purpose instances provide a balance of compute, memory, and networking resources. These instances are ideal for applications that use these resources in equal proportions, such as web servers and code repositories.

For information on previous generation instance types of this category, such as M4 instances, see [Specifications for Amazon EC2 previous generation instances](#).

Contents

- [Instance families and instance types](#)
- [Instance family summary](#)
- [Performance specifications](#)
- [Network specifications](#)

- [Amazon EBS specifications](#)
- [Instance store specifications](#)
- [Security specifications](#)

Pricing

For pricing information, see [Amazon EC2 On-Demand Pricing](#).

Instance families and instance types

Instance family	Available instance types
M5	m5.large m5.xlarge m5.2xlarge m5.4xlarge m5.8xlarge m5.12xlarge m5.16xlarge m5.24xlarge m5.metal
M5a	m5a.large m5a.xlarge m5a.2xlarge m5a.4xlarge m5a.8xlarge m5a.12xlarge m5a.16xlarge m5a.24xlarge
M5ad	m5ad.large m5ad.xlarge m5ad.2xlarge m5ad.4xlarge m5ad.8xlarge m5ad.12xlarge m5ad.16xlarge m5ad.24xlarge
M5d	m5d.large m5d.xlarge m5d.2xlarge m5d.4xlarge m5d.8xlarge m5d.12xlarge m5d.16xlarge m5d.24xlarge m5d.metal
M5dn	m5dn.large m5dn.xlarge m5dn.2xlarge m5dn.4xlarge m5dn.8xlarge m5dn.12xlarge m5dn.16xlarge m5dn.24xlarge m5dn.metal
M5n	m5n.large m5n.xlarge m5n.2xlarge m5n.4xlarge m5n.8xlarge m5n.12xlarge m5n.16xlarge m5n.24xlarge m5n.metal
M5zn	m5zn.large m5zn.xlarge m5zn.2xlarge m5zn.3xlarge m5zn.6xlarge m5zn.12xlarge m5zn.metal
M6a	m6a.large m6a.xlarge m6a.2xlarge m6a.4xlarge m6a.8xlarge m6a.12xlarge m6a.16xlarge m6a.24xlarge m6a.32xlarge m6a.48xlarge m6a.metal

Instance family	Available instance types
M6g	m6g.medium m6g.large m6g.xlarge m6g.2xlarge m6g.4xlarge m6g.8xlarge m6g.12xlarge m6g.16xlarge m6g.metal
M6gd	m6gd.medium m6gd.large m6gd.xlarge m6gd.2xlarge m6gd.4xlarge m6gd.8xlarge m6gd.12xlarge m6gd.16xlarge m6gd.metal
M6i	m6i.large m6i.xlarge m6i.2xlarge m6i.4xlarge m6i.8xlarge m6i.12xlarge m6i.16xlarge m6i.24xlarge m6i.32xlarge m6i.metal
M6id	m6id.large m6id.xlarge m6id.2xlarge m6id.4xlarge m6id.8xlarge m6id.12xlarge m6id.16xlarge m6id.24xlarge m6id.32xlarge m6id.metal
M6idn	m6idn.large m6idn.xlarge m6idn.2xlarge m6idn.4xlarge m6idn.8xlarge m6idn.12xlarge m6idn.16xlarge m6idn.24xlarge m6idn.32xlarge m6idn.metal
M6in	m6in.large m6in.xlarge m6in.2xlarge m6in.4xlarge m6in.8xlarge m6in.12xlarge m6in.16xlarge m6in.24xlarge m6in.32xlarge m6in.metal
M7a	m7a.medium m7a.large m7a.xlarge m7a.2xlarge m7a.4xlarge m7a.8xlarge m7a.12xlarge m7a.16xlarge m7a.24xlarge m7a.32xlarge m7a.48xlarge m7a.metal-48x1
M7g	m7g.medium m7g.large m7g.xlarge m7g.2xlarge m7g.4xlarge m7g.8xlarge m7g.12xlarge m7g.16xlarge m7g.metal
M7gd	m7gd.medium m7gd.large m7gd.xlarge m7gd.2xlarge m7gd.4xlarge m7gd.8xlarge m7gd.12xlarge m7gd.16xlarge m7gd.metal

Instance family	Available instance types
M7i	m7i.large m7i.xlarge m7i.2xlarge m7i.4xlarge m7i.8xlarge m7i.12xlarge m7i.16xlarge m7i.24xlarge m7i.48xlarge m7i.metal-24xl m7i.metal-48xl
M7i-flex	m7i-flex.large m7i-flex.xlarge m7i-flex.2xlarge m7i-flex.4xlarge m7i-flex.8xlarge m7i-flex.12xlarge m7i-flex.16xlarge
M8g	m8g.medium m8g.large m8g.xlarge m8g.2xlarge m8g.4xlarge m8g.8xlarge m8g.12xlarge m8g.16xlarge m8g.24xlarge m8g.48xlarge m8g.metal-24xl m8g.metal-48xl
M8gd	m8gd.medium m8gd.large m8gd.xlarge m8gd.2xlarge m8gd.4xlarge m8gd.8xlarge m8gd.12xlarge m8gd.16xlarge m8gd.24xlarge m8gd.48xlarge m8gd.metal-24xl m8gd.metal-48xl
M8i	m8i.large m8i.xlarge m8i.2xlarge m8i.4xlarge m8i.8xlarge m8i.12xlarge m8i.16xlarge m8i.24xlarge m8i.32xlarge m8i.48xlarge m8i.96xlarge m8i.metal-48xl m8i.metal-96xl
M8i-flex	m8i-flex.large m8i-flex.xlarge m8i-flex.2xlarge m8i-flex.4xlarge m8i-flex.8xlarge m8i-flex.12xlarge m8i-flex.16xlarge
Mac1	mac1.metal
Mac2	mac2.metal
Mac2-m1ultra	mac2-m1ultra.metal
Mac2-m2	mac2-m2.metal
Mac2-m2pro	mac2-m2pro.metal

Instance family	Available instance types
T2	t2.nano t2.micro t2.small t2.medium t2.large t2.xlarge t2.2xlarge
T3	t3.nano t3.micro t3.small t3.medium t3.large t3.xlarge t3.2xlarge
T3a	t3a.nano t3a.micro t3a.small t3a.medium t3a.large t3a.xlarge t3a.2xlarge
T4g	t4g.nano t4g.micro t4g.small t4g.medium t4g.large t4g.xlarge t4g.2xlarge

Instance family summary

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
M5	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M5a	Nitro v2	AMD (x86_64)	✗	✗	✓	✓	Windows Linux
M5ad	Nitro v2	AMD (x86_64)	✗	✗	✓	✓	Windows Linux
M5d	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M5dn	Nitro v3	Intel (x86_64)	✓	✓	✓	✗	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
M5n	Nitro v3	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
M5zn	Nitro v3	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
M6a	Nitro v4	AMD (x86_64)	✓	✓	✓	✓	Windows Linux
M6g	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
M6gd	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
M6i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M6id	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M6idn	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M6in	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M7a	Nitro v4	AMD (x86_64)	✓	✓	✓	✓	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
M7g	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
M7gd	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
M7i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M7i-flex	Nitro v4	Intel (x86_64)	✗	✗	✓	✓	Windows Linux
M8g	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
M8gd	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
M8i	Nitro v6	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M8i-flex	Nitro v6	Intel (x86_64)	✗	✗	✓	✓	Windows Linux
Mac1	Nitro v2	Intel (x86_64_mac)	✓	✓	✗	✗	Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
Mac2	Nitro v2	Apple (arm64_mac)	✓	✓	✗	✗	Linux
Mac2-m1ultra	Nitro v2	Apple (arm64_mac)	✓	✓	✗	✗	Linux
Mac2-m2	Nitro v2	Apple (arm64_mac)	✓	✓	✗	✗	Linux
Mac2-m2pro	Nitro v2	Apple (arm64_mac)	✓	✓	✗	✗	Linux
T2	Xen	Intel (x86_64)	✗	✗	✓	✓	Windows Linux
T3	Nitro v2	Intel (x86_64)	✗	✓	✓	✓	Windows Linux
T3a	Nitro v2	AMD (x86_64)	✗	✗	✓	✓	Windows Linux
T4g	Nitro v2	AWS Graviton (arm64)	✗	✗	✓	✓	Linux

Performance specifications

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
M5							
m5.large	8.00	Intel Xeon Platinum 8175	2	1	2	x	x
m5.xlarge	16.00	Intel Xeon Platinum 8175	4	2	2	x	x
m5.2xlarge	32.00	Intel Xeon Platinum 8175	8	4	2	x	x
m5.4xlarge	64.00	Intel Xeon Platinum 8175	16	8	2	x	x
m5.8xlarge	128.00	Intel Xeon Platinum 8175	32	16	2	x	x
m5.12xlarge	192.00	Intel Xeon Platinum 8175	48	24	2	x	x
m5.16xlarge	256.00	Intel Xeon Platinum 8175	64	32	2	x	x
m5.24xlarge	384.00	Intel Xeon Platinum 8175	96	48	2	x	x
m5.metal	384.00	Intel Xeon Platinum 8175	96	48	2	x	x
M5a							
m5a.large	8.00	AMD EPYC 7571	2	1	2	x	x
m5a.xlarge	16.00	AMD EPYC 7571	4	2	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m5a.2xlarge	32.00	AMD EPYC 7571	8	4	2	x	x
m5a.4xlarge	64.00	AMD EPYC 7571	16	8	2	x	x
m5a.8xlarge	128.00	AMD EPYC 7571	32	16	2	x	x
m5a.12xlarge	192.00	AMD EPYC 7571	48	24	2	x	x
m5a.16xlarge	256.00	AMD EPYC 7571	64	32	2	x	x
m5a.24xlarge	384.00	AMD EPYC 7571	96	48	2	x	x
M5ad							
m5ad.large	8.00	AMD EPYC 7571	2	1	2	x	x
m5ad.xlarge	16.00	AMD EPYC 7571	4	2	2	x	x
m5ad.2xlarge	32.00	AMD EPYC 7571	8	4	2	x	x
m5ad.4xlarge	64.00	AMD EPYC 7571	16	8	2	x	x
m5ad.8xlarge	128.00	AMD EPYC 7571	32	16	2	x	x
m5ad.12xlarge	192.00	AMD EPYC 7571	48	24	2	x	x
m5ad.16xlarge	256.00	AMD EPYC 7571	64	32	2	x	x
m5ad.24xlarge	384.00	AMD EPYC 7571	96	48	2	x	x
M5d							
m5d.large	8.00	Intel Xeon Platinum 8175	2	1	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m5d.xlarge	16.00	Intel Xeon Platinum 8175	4	2	2	x	x
m5d.2xlarge	32.00	Intel Xeon Platinum 8175	8	4	2	x	x
m5d.4xlarge	64.00	Intel Xeon Platinum 8175	16	8	2	x	x
m5d.8xlarge	128.00	Intel Xeon Platinum 8175	32	16	2	x	x
m5d.12xlarge	192.00	Intel Xeon Platinum 8175	48	24	2	x	x
m5d.16xlarge	256.00	Intel Xeon Platinum 8175	64	32	2	x	x
m5d.24xlarge	384.00	Intel Xeon Platinum 8175	96	48	2	x	x
m5d.metal	384.00	Intel Xeon Platinum 8175	96	48	2	x	x
M5dn							
m5dn.large	8.00	Intel Xeon Platinum 8259	2	1	2	x	x
m5dn.xlarge	16.00	Intel Xeon Platinum 8259	4	2	2	x	x
m5dn.2xlarge	32.00	Intel Xeon Platinum 8259	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m5dn.4xlarge	64.00	Intel Xeon Platinum 8259	16	8	2	x	x
m5dn.8xlarge	128.00	Intel Xeon Platinum 8259	32	16	2	x	x
m5dn.12xlarge	192.00	Intel Xeon Platinum 8259	48	24	2	x	x
m5dn.16xlarge	256.00	Intel Xeon Platinum 8259	64	32	2	x	x
m5dn.24xlarge	384.00	Intel Xeon Platinum 8259	96	48	2	x	x
m5dn.metal	384.00	Intel Xeon Platinum 8259	96	48	2	x	x
M5n							
m5n.large	8.00	Intel Xeon Platinum 8259	2	1	2	x	x
m5n.xlarge	16.00	Intel Xeon Platinum 8259	4	2	2	x	x
m5n.2xlarge	32.00	Intel Xeon Platinum 8259	8	4	2	x	x
m5n.4xlarge	64.00	Intel Xeon Platinum 8259	16	8	2	x	x
m5n.8xlarge	128.00	Intel Xeon Platinum 8259	32	16	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m5n.12xlarge	192.00	Intel Xeon Platinum 8259	48	24	2	x	x
m5n.16xlarge	256.00	Intel Xeon Platinum 8259	64	32	2	x	x
m5n.24xlarge	384.00	Intel Xeon Platinum 8259	96	48	2	x	x
m5n.metal	384.00	Intel Xeon Platinum 8259	96	48	2	x	x
M5zn							
m5zn.large	8.00	Intel Xeon Platinum 8252	2	1	2	x	x
m5zn.xlarge	16.00	Intel Xeon Platinum 8252	4	2	2	x	x
m5zn.2xlarge	32.00	Intel Xeon Platinum 8252	8	4	2	x	x
m5zn.3xlarge	48.00	Intel Xeon Platinum 8252	12	6	2	x	x
m5zn.6xlarge	96.00	Intel Xeon Platinum 8252	24	12	2	x	x
m5zn.12xlarge	192.00	Intel Xeon Platinum 8252	48	24	2	x	x
m5zn.metal	192.00	Intel Xeon Platinum 8252	48	24	2	x	x

M6a

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
m6a.large	8.00	AMD EPYC 7R13	2	1	2	x	x
m6a.xlarge	16.00	AMD EPYC 7R13	4	2	2	x	x
m6a.2xlarge	32.00	AMD EPYC 7R13	8	4	2	x	x
m6a.4xlarge	64.00	AMD EPYC 7R13	16	8	2	x	x
m6a.8xlarge	128.00	AMD EPYC 7R13	32	16	2	x	x
m6a.12xlarge	192.00	AMD EPYC 7R13	48	24	2	x	x
m6a.16xlarge	256.00	AMD EPYC 7R13	64	32	2	x	x
m6a.24xlarge	384.00	AMD EPYC 7R13	96	48	2	x	x
m6a.32xlarge	512.00	AMD EPYC 7R13	128	64	2	x	x
m6a.48xlarge	768.00	AMD EPYC 7R13	192	96	2	x	x
m6a.metal	768.00	AMD EPYC 7R13	192	96	2	x	x
M6g							
m6g.medium	4.00	AWS Graviton2 Processor	1	1	1	x	x
m6g.large	8.00	AWS Graviton2 Processor	2	2	1	x	x
m6g.xlarge	16.00	AWS Graviton2 Processor	4	4	1	x	x
m6g.2xlarge	32.00	AWS Graviton2 Processor	8	8	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m6g.4xlarge	64.00	AWS Graviton2 Processor	16	16	1	x	x
m6g.8xlarge	128.00	AWS Graviton2 Processor	32	32	1	x	x
m6g.12xlarge	192.00	AWS Graviton2 Processor	48	48	1	x	x
m6g.16xlarge	256.00	AWS Graviton2 Processor	64	64	1	x	x
m6g.metal	256.00	AWS Graviton2 Processor	64	64	1	x	x
M6gd							
m6gd.medium	4.00	AWS Graviton2 Processor	1	1	1	x	x
m6gd.large	8.00	AWS Graviton2 Processor	2	2	1	x	x
m6gd.xlarge	16.00	AWS Graviton2 Processor	4	4	1	x	x
m6gd.2xlarge	32.00	AWS Graviton2 Processor	8	8	1	x	x
m6gd.4xlarge	64.00	AWS Graviton2 Processor	16	16	1	x	x
m6gd.8xlarge	128.00	AWS Graviton2 Processor	32	32	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
m6gd.12xlarge	192.00	AWS Graviton2 Processor	48	48	1	x	x
m6gd.16xlarge	256.00	AWS Graviton2 Processor	64	64	1	x	x
m6gd.metal	256.00	AWS Graviton2 Processor	64	64	1	x	x
M6i							
m6i.large	8.00	Intel Xeon Ice Lake	2	1	2	x	x
m6i.xlarge	16.00	Intel Xeon Ice Lake	4	2	2	x	x
m6i.2xlarge	32.00	Intel Xeon Ice Lake	8	4	2	x	x
m6i.4xlarge	64.00	Intel Xeon Ice Lake	16	8	2	x	x
m6i.8xlarge	128.00	Intel Xeon Ice Lake	32	16	2	x	x
m6i.12xlarge	192.00	Intel Xeon Ice Lake	48	24	2	x	x
m6i.16xlarge	256.00	Intel Xeon Ice Lake	64	32	2	x	x
m6i.24xlarge	384.00	Intel Xeon Ice Lake	96	48	2	x	x
m6i.32xlarge	512.00	Intel Xeon Ice Lake	128	64	2	x	x
m6i.metal	512.00	Intel Xeon Ice Lake	128	64	2	x	x
M6id							
m6id.large	8.00	Intel Xeon Ice Lake	2	1	2	x	x
m6id.xlarge	16.00	Intel Xeon Ice Lake	4	2	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m6id.2xlarge	32.00	Intel Xeon Ice Lake	8	4	2	x	x
m6id.4xlarge	64.00	Intel Xeon Ice Lake	16	8	2	x	x
m6id.8xlarge	128.00	Intel Xeon Ice Lake	32	16	2	x	x
m6id.12xlarge	192.00	Intel Xeon Ice Lake	48	24	2	x	x
m6id.16xlarge	256.00	Intel Xeon Ice Lake	64	32	2	x	x
m6id.24xlarge	384.00	Intel Xeon Ice Lake	96	48	2	x	x
m6id.32xlarge	512.00	Intel Xeon Ice Lake	128	64	2	x	x
m6id.metal	512.00	Intel Xeon Ice Lake	128	64	2	x	x
M6idn							
m6idn.large	8.00	Intel Xeon Ice Lake	2	1	2	x	x
m6idn.xlarge	16.00	Intel Xeon Ice Lake	4	2	2	x	x
m6idn.2xlarge	32.00	Intel Xeon Ice Lake	8	4	2	x	x
m6idn.4xlarge	64.00	Intel Xeon Ice Lake	16	8	2	x	x
m6idn.8xlarge	128.00	Intel Xeon Ice Lake	32	16	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m6idn.12xlarge	192.00	Intel Xeon Ice Lake	48	24	2	x	x
m6idn.16xlarge	256.00	Intel Xeon Ice Lake	64	32	2	x	x
m6idn.24xlarge	384.00	Intel Xeon Ice Lake	96	48	2	x	x
m6idn.32xlarge	512.00	Intel Xeon Ice Lake	128	64	2	x	x
m6idn.metal	512.00	Intel Xeon Ice Lake	128	64	2	x	x
M6in							
m6in.large	8.00	Intel Xeon Ice Lake	2	1	2	x	x
m6in.xlarge	16.00	Intel Xeon Ice Lake	4	2	2	x	x
m6in.2xlarge	32.00	Intel Xeon Ice Lake	8	4	2	x	x
m6in.4xlarge	64.00	Intel Xeon Ice Lake	16	8	2	x	x
m6in.8xlarge	128.00	Intel Xeon Ice Lake	32	16	2	x	x
m6in.12xlarge	192.00	Intel Xeon Ice Lake	48	24	2	x	x
m6in.16xlarge	256.00	Intel Xeon Ice Lake	64	32	2	x	x
m6in.24xlarge	384.00	Intel Xeon Ice Lake	96	48	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
m6in.32xlarge	512.00	Intel Xeon Ice Lake	128	64	2	x	x
m6in.metal	512.00	Intel Xeon Ice Lake	128	64	2	x	x
M7a							
m7a.medium	4.00	AMD EPYC 9R14	1	1	1	x	x
m7a.large	8.00	AMD EPYC 9R14	2	2	1	x	x
m7a.xlarge	16.00	AMD EPYC 9R14	4	4	1	x	x
m7a.2xlarge	32.00	AMD EPYC 9R14	8	8	1	x	x
m7a.4xlarge	64.00	AMD EPYC 9R14	16	16	1	x	x
m7a.8xlarge	128.00	AMD EPYC 9R14	32	32	1	x	x
m7a.12xlarge	192.00	AMD EPYC 9R14	48	48	1	x	x
m7a.16xlarge	256.00	AMD EPYC 9R14	64	64	1	x	x
m7a.24xlarge	384.00	AMD EPYC 9R14	96	96	1	x	x
m7a.32xlarge	512.00	AMD EPYC 9R14	128	128	1	x	x
m7a.48xlarge	768.00	AMD EPYC 9R14	192	192	1	x	x
m7a.metal-48xl	768.00	AMD EPYC 9R14	192	192	1	x	x
M7g							
m7g.medium	4.00	AWS Graviton3 Processor	1	1	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
m7g.large	8.00	AWS Graviton3 Processor	2	2	1	x	x
m7g.xlarge	16.00	AWS Graviton3 Processor	4	4	1	x	x
m7g.2xlarge	32.00	AWS Graviton3 Processor	8	8	1	x	x
m7g.4xlarge	64.00	AWS Graviton3 Processor	16	16	1	x	x
m7g.8xlarge	128.00	AWS Graviton3 Processor	32	32	1	x	x
m7g.12xlarge	192.00	AWS Graviton3 Processor	48	48	1	x	x
m7g.16xlarge	256.00	AWS Graviton3 Processor	64	64	1	x	x
m7g.metal	256.00	AWS Graviton3 Processor	64	64	1	x	x
M7gd							
m7gd.medium	4.00	AWS Graviton3 Processor	1	1	1	x	x
m7gd.large	8.00	AWS Graviton3 Processor	2	2	1	x	x
m7gd.xlarge	16.00	AWS Graviton3 Processor	4	4	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m7gd.2xlarge	32.00	AWS Graviton3 Processor	8	8	1	x	x
m7gd.4xlarge	64.00	AWS Graviton3 Processor	16	16	1	x	x
m7gd.8xlarge	128.00	AWS Graviton3 Processor	32	32	1	x	x
m7gd.12xlarge	192.00	AWS Graviton3 Processor	48	48	1	x	x
m7gd.16xlarge	256.00	AWS Graviton3 Processor	64	64	1	x	x
m7gd.metal	256.00	AWS Graviton3 Processor	64	64	1	x	x
M7i							
m7i.large	8.00	Intel Xeon Sapphire Rapids	2	1	2	x	x
m7i.xlarge	16.00	Intel Xeon Sapphire Rapids	4	2	2	x	x
m7i.2xlarge	32.00	Intel Xeon Sapphire Rapids	8	4	2	x	x
m7i.4xlarge	64.00	Intel Xeon Sapphire Rapids	16	8	2	x	x
m7i.8xlarge	128.00	Intel Xeon Sapphire Rapids	32	16	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m7i.12xlarge	192.00	Intel Xeon Sapphire Rapids	48	24	2	x	x
m7i.16xlarge	256.00	Intel Xeon Sapphire Rapids	64	32	2	x	x
m7i.24xlarge	384.00	Intel Xeon Sapphire Rapids	96	48	2	x	x
m7i.48xlarge	768.00	Intel Xeon Sapphire Rapids	192	96	2	x	x
m7i.metal-24xl	384.00	Intel Xeon Sapphire Rapids	96	48	2	x	x
m7i.metal-48xl	768.00	Intel Xeon Sapphire Rapids	192	96	2	x	x
M7i-flex							
m7i-flex.large	8.00	Intel Xeon Sapphire Rapids	2	1	2	x	x
m7i-flex.xlarge	16.00	Intel Xeon Sapphire Rapids	4	2	2	x	x
m7i-flex.2xlarge	32.00	Intel Xeon Sapphire Rapids	8	4	2	x	x
m7i-flex.4xlarge	64.00	Intel Xeon Sapphire Rapids	16	8	2	x	x
m7i-flex.8xlarge	128.00	Intel Xeon Sapphire Rapids	32	16	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m7i-flex.12xlarge	192.00	Intel Xeon Sapphire Rapids	48	24	2	x	x
m7i-flex.16xlarge	256.00	Intel Xeon Sapphire Rapids	64	32	2	x	x
M8g							
m8g.medium	4.00	AWS Graviton4 Processor	1	1	1	x	x
m8g.large	8.00	AWS Graviton4 Processor	2	2	1	x	x
m8g.xlarge	16.00	AWS Graviton4 Processor	4	4	1	x	x
m8g.2xlarge	32.00	AWS Graviton4 Processor	8	8	1	x	x
m8g.4xlarge	64.00	AWS Graviton4 Processor	16	16	1	x	x
m8g.8xlarge	128.00	AWS Graviton4 Processor	32	32	1	x	x
m8g.12xlarge	192.00	AWS Graviton4 Processor	48	48	1	x	x
m8g.16xlarge	256.00	AWS Graviton4 Processor	64	64	1	x	x
m8g.24xlarge	384.00	AWS Graviton4 Processor	96	96	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
m8g.48xlarge	768.00	AWS Graviton4 Processor	192	192	1	x	x
m8g.metal-24xl	384.00	AWS Graviton4 Processor	96	96	1	x	x
m8g.metal-48xl	768.00	AWS Graviton4 Processor	192	192	1	x	x
M8gd							
m8gd.medium	4.00	AWS Graviton4 Processor	1	1	1	x	x
m8gd.large	8.00	AWS Graviton4 Processor	2	2	1	x	x
m8gd.xlarge	16.00	AWS Graviton4 Processor	4	4	1	x	x
m8gd.2xlarge	32.00	AWS Graviton4 Processor	8	8	1	x	x
m8gd.4xlarge	64.00	AWS Graviton4 Processor	16	16	1	x	x
m8gd.8xlarge	128.00	AWS Graviton4 Processor	32	32	1	x	x
m8gd.12xlarge	192.00	AWS Graviton4 Processor	48	48	1	x	x
m8gd.16xlarge	256.00	AWS Graviton4 Processor	64	64	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m8gd.24xlarge	384.00	AWS Graviton4 Processor	96	96	1	x	x
m8gd.48xlarge	768.00	AWS Graviton4 Processor	192	192	1	x	x
m8gd.meta1-24xlarge	384.00	AWS Graviton4 Processor	96	96	1	x	x
m8gd.meta1-48xlarge	768.00	AWS Graviton4 Processor	192	192	1	x	x
M8i							
m8i.large	8.00	Intel Xeon Granite Rapids	2	1	2	x	x
m8i.xlarge	16.00	Intel Xeon Granite Rapids	4	2	2	x	x
m8i.2xlarge	32.00	Intel Xeon Granite Rapids	8	4	2	x	x
m8i.4xlarge	64.00	Intel Xeon Granite Rapids	16	8	2	x	x
m8i.8xlarge	128.00	Intel Xeon Granite Rapids	32	16	2	x	x
m8i.12xlarge	192.00	Intel Xeon Granite Rapids	48	24	2	x	x
m8i.16xlarge	256.00	Intel Xeon Granite Rapids	64	32	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m8i.24xlarge	384.00	Intel Xeon Granite Rapids	96	48	2	x	x
m8i.32xlarge	512.00	Intel Xeon Granite Rapids	128	64	2	x	x
m8i.48xlarge	768.00	Intel Xeon Granite Rapids	192	96	2	x	x
m8i.96xlarge	1536.00	Intel Xeon Granite Rapids	384	192	2	x	x
m8i.metal-48xl	768.00	Intel Xeon Granite Rapids	192	96	2	x	x
m8i.metal-96xl	1536.00	Intel Xeon Granite Rapids	384	192	2	x	x
M8i-flex							
m8i-flex.large	8.00	Intel Xeon Granite Rapids	2	1	2	x	x
m8i-flex.xlarge	16.00	Intel Xeon Granite Rapids	4	2	2	x	x
m8i-flex.2xlarge	32.00	Intel Xeon Granite Rapids	8	4	2	x	x
m8i-flex.4xlarge	64.00	Intel Xeon Granite Rapids	16	8	2	x	x
m8i-flex.8xlarge	128.00	Intel Xeon Granite Rapids	32	16	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
m8i-flex.12xlarge	192.00	Intel Xeon Granite Rapids	48	24	2	x	x
m8i-flex.16xlarge	256.00	Intel Xeon Granite Rapids	64	32	2	x	x
Mac1							
mac1.metal	32.00	Intel Core i7-8700B	12	6	2	x	x
Mac2							
mac2.metal	16.00	Apple M1 chip with 8-core CPU	8	4	2	x	x
Mac2-m1ultra							
mac2-m1ultra.metal	128.00	Apple M1 Ultra with 20-core CPU	20	20	1	x	x
Mac2-m2							
mac2-m2.metal	24.00	Apple M2 with 8-core CPU	8	8	1	x	x
Mac2-m2pro							
mac2-m2pro.metal	32.00	Apple M2 Pro with 12-core CPU	12	12	1	x	x
T2							
t2.nano ¹	0.50	Intel Xeon Family	1	1	1	x	x
t2.micro ¹	1.00	Intel Xeon Family	1	1	1	x	x
t2.small ¹	2.00	Intel Xeon Family	1	1	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
t2.medium ¹	4.00	Intel Broadwell E5-2686v4	2	2	1	x	x
t2.large ¹	8.00	Intel Broadwell E5-2686v4	2	2	1	x	x
t2.xlarge ¹	16.00	Intel Broadwell E5-2686v4	4	4	1	x	x
t2.2xlarge ¹	32.00	Intel Broadwell E5-2686v4	8	8	1	x	x
T3							
t3.nano ¹	0.50	Intel Skylake P-8175	2	1	2	x	x
t3.micro ¹	1.00	Intel Skylake P-8175	2	1	2	x	x
t3.small ¹	2.00	Intel Skylake P-8175	2	1	2	x	x
t3.medium ¹	4.00	Intel Skylake P-8175	2	1	2	x	x
t3.large ¹	8.00	Intel Skylake P-8175	2	1	2	x	x
t3.xlarge ¹	16.00	Intel Skylake P-8175	4	2	2	x	x
t3.2xlarge ¹	32.00	Intel Skylake P-8175	8	4	2	x	x
T3a							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
t3a.nano ¹	0.50	AMD EPYC 7571	2	1	2	x	x
t3a.micro ¹	1.00	AMD EPYC 7571	2	1	2	x	x
t3a.small ¹	2.00	AMD EPYC 7571	2	1	2	x	x
t3a.medium ¹	4.00	AMD EPYC 7571	2	1	2	x	x
t3a.large ¹	8.00	AMD EPYC 7571	2	1	2	x	x
t3a.xlarge ¹	16.00	AMD EPYC 7571	4	2	2	x	x
t3a.2xlarge ¹	32.00	AMD EPYC 7571	8	4	2	x	x
T4g							
t4g.nano ¹	0.50	AWS Graviton2 Processor	2	2	1	x	x
t4g.micro ¹	1.00	AWS Graviton2 Processor	2	2	1	x	x
t4g.small ¹	2.00	AWS Graviton2 Processor	2	2	1	x	x
t4g.medium ¹	4.00	AWS Graviton2 Processor	2	2	1	x	x
t4g.large ¹	8.00	AWS Graviton2 Processor	2	2	1	x	x
t4g.xlarge ¹	16.00	AWS Graviton2 Processor	4	4	1	x	x
t4g.2xlarge ¹	32.00	AWS Graviton2 Processor	8	8	1	x	x

Note

¹ These are burstable instance types that provide a baseline CPU performance with the ability to burst beyond their baseline at any time using CPU credits. For more information, see [Burstable performance instances](#).

Network specifications

Note

M8g, M8gd, M8i, M8i-flex instance types support configurable bandwidth weightings. With these instance types, you can optimize an instance's bandwidth for either networking performance or Amazon EBS performance. The following table shows the default networking bandwidth performance for these instance types. For the supported configurable weightings, see [Configurable bandwidth weighting preferences](#).

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
M5								
m5.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
m5.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
m5.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
m5.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
m5.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
m5.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓
m5.16xlarge	20 Gigabit	x	✓	x	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m5.24xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
m5.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
M5a								
m5a.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
m5a.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
m5a.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
m5a.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
m5a.8xlarge ¹	7.5 / 10.0	✗	✓	✗	1	8	30	✓
m5a.12xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
m5a.16xlarge	12 Gigabit	✗	✓	✗	1	15	50	✓
m5a.24xlarge	20 Gigabit	✗	✓	✗	1	15	50	✓
M5ad								
m5ad.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
m5ad.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
m5ad.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
m5ad.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
m5ad.8xlarge ¹	7.5 / 10.0	✗	✓	✗	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m5ad.12xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
m5ad.16xlarge	12 Gigabit	✗	✓	✗	1	15	50	✓
m5ad.24xlarge	20 Gigabit	✗	✓	✗	1	15	50	✓
M5d								
m5d.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
m5d.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
m5d.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
m5d.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
m5d.8xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
m5d.12xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
m5d.16xlarge	20 Gigabit	✗	✓	✗	1	15	50	✓
m5d.24xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
m5d.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
M5dn								
m5dn.large ¹	2.1 / 25.0	✗	✓	✗	1	3	10	✓
m5dn.xlarge ¹	4.1 / 25.0	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m5dn.2xlarge ¹	8.125 / 25.0	✗	✓	✗	1	4	15	✓
m5dn.4xlarge ¹	16.25 / 25.0	✗	✓	✗	1	8	30	✓
m5dn.8xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
m5dn.12xlarge	50 Gigabit	✗	✓	✗	1	8	30	✓
m5dn.16xlarge	75 Gigabit	✗	✓	✗	1	15	50	✓
m5dn.24xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
m5dn.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
M5n								
m5n.large ¹	2.1 / 25.0	✗	✓	✗	1	3	10	✓
m5n.xlarge ¹	4.1 / 25.0	✗	✓	✗	1	4	15	✓
m5n.2xlarge ¹	8.125 / 25.0	✗	✓	✗	1	4	15	✓
m5n.4xlarge ¹	16.25 / 25.0	✗	✓	✗	1	8	30	✓
m5n.8xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
m5n.12xlarge	50 Gigabit	✗	✓	✗	1	8	30	✓
m5n.16xlarge	75 Gigabit	✗	✓	✗	1	15	50	✓
m5n.24xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m5n.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
M5zn								
m5zn.large ¹	3.0 / 25.0	✗	✓	✗	1	3	10	✓
m5zn.xlarge ¹	5.0 / 25.0	✗	✓	✗	1	4	15	✓
m5zn.2xlarge ¹	10.0 / 25.0	✗	✓	✗	1	4	15	✓
m5zn.3xlarge ¹	15.0 / 25.0	✗	✓	✗	1	8	30	✓
m5zn.6xlarge	50 Gigabit	✗	✓	✗	1	8	30	✓
m5zn.12xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
m5zn.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
M6a								
m6a.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
m6a.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
m6a.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
m6a.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
m6a.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
m6a.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
m6a.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m6a.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
m6a.32xlarge	50 Gigabit	✗	✓	✓	1	15	50	✓
m6a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m6a.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
M6g								
m6g.medium ¹	0.5 / 10.0	✗	✓	✗	1	2	4	✓
m6g.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
m6g.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
m6g.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
m6g.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
m6g.8xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
m6g.12xlarge	20 Gigabit	✗	✓	✗	1	8	30	✓
m6g.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
m6g.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
M6gd								
m6gd.medium ¹	0.5 / 10.0	✗	✓	✗	1	2	4	✓
m6gd.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m6gd.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
m6gd.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
m6gd.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
m6gd.8xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
m6gd.12xlarge	20 Gigabit	✗	✓	✗	1	8	30	✓
m6gd.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
m6gd.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
M6i								
m6i.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
m6i.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
m6i.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
m6i.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
m6i.8xlarge	12.5 Gigabit	✗	✓	✓	1	8	30	✓
m6i.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
m6i.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
m6i.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m6i.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m6i.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
M6id								
m6id.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
m6id.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
m6id.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
m6id.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
m6id.8xlarge	12.5 Gigabit	✗	✓	✓	1	8	30	✓
m6id.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
m6id.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
m6id.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
m6id.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m6id.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
M6idn								
m6idn.large ¹	3.125 / 25.0	✗	✓	✗	1	3	10	✓
m6idn.xlarge ¹	6.25 / 30.0	✗	✓	✗	1	4	15	✓
m6idn.2xlarge ¹	12.5 / 40.0	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m6idn.4xlarge ¹	25.0 / 50.0	✗	✓	✗	1	8	30	✓
m6idn.8xlarge	50 Gigabit	✗	✓	✓	1	8	30	✓
m6idn.12xlarge	75 Gigabit	✗	✓	✓	1	8	30	✓
m6idn.16xlarge	100 Gigabit	✗	✓	✓	1	15	50	✓
m6idn.24xlarge	150 Gigabit	✗	✓	✓	1	15	50	✓
m6idn.32xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
m6idn.metal	200 Gigabit	✓	✓	✓	2	16	50	✓
M6in								
m6in.large ¹	3.125 / 25.0	✗	✓	✗	1	3	10	✓
m6in.xlarge ¹	6.25 / 30.0	✗	✓	✗	1	4	15	✓
m6in.2xlarge ¹	12.5 / 40.0	✗	✓	✗	1	4	15	✓
m6in.4xlarge ¹	25.0 / 50.0	✗	✓	✗	1	8	30	✓
m6in.8xlarge	50 Gigabit	✗	✓	✓	1	8	30	✓
m6in.12xlarge	75 Gigabit	✗	✓	✓	1	8	30	✓
m6in.16xlarge	100 Gigabit	✗	✓	✓	1	15	50	✓
m6in.24xlarge	150 Gigabit	✗	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m6in.32xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
m6in.metal	200 Gigabit	✓	✓	✓	2	16	50	✓
M7a								
m7a.medium ¹	0.39 / 12.5	✗	✓	✗	1	2	4	✓
m7a.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
m7a.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
m7a.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
m7a.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
m7a.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
m7a.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
m7a.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
m7a.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
m7a.32xlarge	50 Gigabit	✗	✓	✓	1	15	50	✓
m7a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m7a.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
M7g								
m7g.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m7g.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
m7g.xlarge ¹	1.876 / 12.5	✗	✓	✗	1	4	15	✓
m7g.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
m7g.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
m7g.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
m7g.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
m7g.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓
m7g.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
M7gd								
m7gd.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
m7gd.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
m7gd.xlarge ¹	1.876 / 12.5	✗	✓	✗	1	4	15	✓
m7gd.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
m7gd.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
m7gd.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
m7gd.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m7gd.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓
m7gd.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
M7i								
m7i.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
m7i.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
m7i.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
m7i.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
m7i.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
m7i.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
m7i.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
m7i.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
m7i.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m7i.metal-24xl	37.5 Gigabit	✗	✓	✓	1	15	50	✓
m7i.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
M7i-flex								
m7i-flex.large ¹	0.39 / 12.5	✗	✓	✗	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m7i-flex.xlarge ¹	0.781 / 12.5	✗	✓	✗	1	4	15	✓
m7i-flex.2xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
m7i-flex.4xlarge ¹	3.125 / 12.5	✗	✓	✗	1	8	30	✓
m7i-flex.8xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
m7i-flex.12xlarge ¹	9.375 / 18.75	✗	✓	✗	1	8	30	✓
m7i-flex.16xlarge ¹	12.5 / 25.0	✗	✓	✗	1	15	50	✓
M8g								
m8g.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
m8g.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
m8g.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	15	✓
m8g.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
m8g.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
m8g.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
m8g.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m8g.16xlarge	30 Gigabit	✗	✓	✓	1	15	50	✓
m8g.24xlarge	40 Gigabit	✓	✓	✓	1	15	50	✓
m8g.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m8g.metal-24xl	40 Gigabit	✓	✓	✓	1	15	50	✓
m8g.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
M8gd								
m8gd.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
m8gd.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
m8gd.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	15	✓
m8gd.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
m8gd.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
m8gd.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
m8gd.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
m8gd.16xlarge	30 Gigabit	✗	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m8gd.24xlarge	40 Gigabit	✓	✓	✓	1	15	50	✓
m8gd.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m8gd.meta-l-24xl	40 Gigabit	✓	✓	✓	1	15	50	✓
m8gd.meta-l-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
M8i								
m8i.large ¹	0.937 / 12.5	✗	✓	✗	1	3	20	✓
m8i.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	30	✓
m8i.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	30	✓
m8i.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	50	✓
m8i.8xlarge	15 Gigabit	✗	✓	✗	1	10	50	✓
m8i.12xlarge	22.5 Gigabit	✗	✓	✗	1	12	50	✓
m8i.16xlarge	30 Gigabit	✗	✓	✗	1	16	64	✓
m8i.24xlarge	40 Gigabit	✗	✓	✓	1	16	64	✓
m8i.32xlarge	50 Gigabit	✗	✓	✓	1	24	64	✓
m8i.48xlarge	75 Gigabit	✓	✓	✓	1	24	64	✓
m8i.96xlarge	100 Gigabit	✓	✓	✓	1	24	64	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
m8i.metal-48xl	75 Gigabit	✓	✓	✓	1	24	64	✓
m8i.metal-96xl	100 Gigabit	✓	✓	✓	1	24	64	✓
M8i-flex								
m8i-flex.large ¹	0.468 / 12.5	x	✓	x	1	3	20	✓
m8i-flex.xlarge ¹	0.937 / 12.5	x	✓	x	1	4	30	✓
m8i-flex.2xlarge ¹	1.875 / 15.0	x	✓	x	1	4	30	✓
m8i-flex.4xlarge ¹	3.75 / 15.0	x	✓	x	1	8	50	✓
m8i-flex.8xlarge ¹	7.5 / 15.0	x	✓	x	1	10	50	✓
m8i-flex.12xlarge ¹	11.25 / 22.5	x	✓	x	1	12	50	✓
m8i-flex.16xlarge ¹	15.0 / 30.0	x	✓	x	1	16	64	✓
Mac1								
mac1.metal	25 Gigabit	x	✓	x	1	8	30	✓
Mac2								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
mac2.metal	10 Gigabit	x	✓	x	1	8	30	✓
Mac2-m1ultra								
mac2-m1ultra.metal	10 Gigabit	x	✓	x	1	8	30	✓
Mac2-m2								
mac2-m2.metal	10 Gigabit	x	✓	x	1	8	30	✓
Mac2-m2pro								
mac2-m2pro.metal	10 Gigabit	x	✓	x	1	8	30	✓
T2								
t2.nano	Low to Moderate	x	x	x	1	2	2	✓
t2.micro	Low to Moderate	x	x	x	1	2	2	✓
t2.small	Low to Moderate	x	x	x	1	3	4	✓
t2.medium	Low to Moderate	x	x	x	1	3	6	✓
t2.large	Low to Moderate	x	x	x	1	3	12	✓
t2.xlarge	Moderate	x	x	x	1	3	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
t2.2xlarge	Moderate	x	x	x	1	3	15	✓
T3								
t3.nano ¹	0.032 / 5.0	x	✓	x	1	2	2	✓
t3.micro ¹	0.064 / 5.0	x	✓	x	1	2	2	✓
t3.small ¹	0.128 / 5.0	x	✓	x	1	3	4	✓
t3.medium ¹	0.256 / 5.0	x	✓	x	1	3	6	✓
t3.large ¹	0.512 / 5.0	x	✓	x	1	3	12	✓
t3.xlarge ¹	1.024 / 5.0	x	✓	x	1	4	15	✓
t3.2xlarge ¹	2.048 / 5.0	x	✓	x	1	4	15	✓
T3a								
t3a.nano ¹	0.032 / 5.0	x	✓	x	1	2	2	✓
t3a.micro ¹	0.064 / 5.0	x	✓	x	1	2	2	✓
t3a.small ¹	0.128 / 5.0	x	✓	x	1	2	4	✓
t3a.medium ¹	0.256 / 5.0	x	✓	x	1	3	6	✓
t3a.large ¹	0.512 / 5.0	x	✓	x	1	3	12	✓
t3a.xlarge ¹	1.024 / 5.0	x	✓	x	1	4	15	✓
t3a.2xlarge ¹	2.048 / 5.0	x	✓	x	1	4	15	✓
T4g								
t4g.nano ¹	0.032 / 5.0	x	✓	x	1	2	2	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
t4g.micro ¹	0.064 / 5.0	✗	✓	✗	1	2	2	✓
t4g.small ¹	0.128 / 5.0	✗	✓	✗	1	3	4	✓
t4g.medium ¹	0.256 / 5.0	✗	✓	✗	1	3	6	✓
t4g.large ¹	0.512 / 5.0	✗	✓	✗	1	3	12	✓
t4g.xlarge ¹	1.024 / 5.0	✗	✓	✗	1	4	15	✓
t4g.2xlarge ¹	2.048 / 5.0	✗	✓	✗	1	4	15	✓

Note

¹ These instances have a baseline bandwidth and can use a network I/O credit mechanism to burst beyond their baseline bandwidth on a best effort basis. Other instances types can sustain their maximum performance indefinitely. For more information, see [instance network bandwidth](#).

For m6in.32xlarge, m6in.metal, m6idn.32xlarge, and m6idn.metal, you must attach at least 2 ENIs, to separate network cards, to achieve 200 Gbps throughput. Each ENI attached to a network card can achieve up to 170 Gbps.

Amazon EBS specifications

The following table indicates which instance types are Amazon EBS optimized by default and which optionally support it. It also describes their EBS-optimized performance, including dedicated bandwidth to Amazon EBS, the typical maximum aggregate throughput that can be achieved on that dedicated connection with a streaming read workload and 128 KiB I/O size, and the maximum IOPS the instance type can support when using a 16 KiB I/O size. Instance types not listed do not support Amazon EBS optimization.

⚠ Important

An instance's EBS performance is bounded by the instance's performance limits, or the aggregated performance of its attached volumes, whichever is smaller. To achieve maximum EBS performance, an instance must have attached volumes that provide a combined performance equal to or greater than the maximum instance performance. For example, to achieve 80,000 IOPS for `r6i.16xlarge`, the instance must have at least 5 gp3 volumes provisioned with 16,000 IOPS each (5 volumes x 16,000 IOPS = 80,000 IOPS).

We recommend that you choose an EBS-optimized instance type that provides more dedicated Amazon EBS throughput than your application needs; otherwise, the connection between Amazon EBS and Amazon EC2 can become a performance bottleneck.

ℹ Note

M8g, M8gd, M8i, M8i-flex instance types support configurable bandwidth weightings. With these instance types, you can optimize an instance's bandwidth for either networking performance or Amazon EBS performance. The following table shows the default networking bandwidth performance for these instance types. For the supported configurable weightings, see [Configurable bandwidth weighting preferences](#).

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
M5					
m5.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	Up to 27 (Shared limit)
m5.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m5.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	Up to 27 (Shared limit)
m5.4xlarge	4750.00	593.75	18750.00	✓	Up to 27 (Shared limit)
m5.8xlarge	6800.00	850.00	30000.00	✓	Up to 27 (Shared limit)
m5.12xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
m5.16xlarge	13600.00	1700.00	60000.00	✓	Up to 27 (Shared limit)
m5.24xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
m5.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
M5a					
m5a.large ¹	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	Up to 27 (Shared limit)
m5a.xlarge ¹	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	Up to 27 (Shared limit)
m5a.2xlarge ¹	1580.00 / 2880.00	197.50 / 360.00	8333.00 / 16000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m5a.4xlarge	2880.00	360.00	16000.00	✓	Up to 27 (Shared limit)
m5a.8xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
m5a.12xlarge	6780.00	847.50	30000.00	✓	Up to 27 (Shared limit)
m5a.16xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
m5a.24xlarge	13750.00	1718.75	60000.00	✓	Up to 27 (Shared limit)
M5ad					
m5ad.large ¹	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	Up to 26 (Shared limit)
m5ad.xlarge ¹	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	Up to 26 (Shared limit)
m5ad.2xlarge ¹	1580.00 / 2880.00	197.50 / 360.00	8333.00 / 16000.00	✓	Up to 26 (Shared limit)
m5ad.4xlarge	2880.00	360.00	16000.00	✓	Up to 25 (Shared limit)
m5ad.8xlarge	4750.00	593.75	20000.00	✓	Up to 25 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m5ad.12xlarge	6780.00	847.50	30000.00	✓	Up to 25 (Shared limit)
m5ad.16xlarge	9500.00	1187.50	40000.00	✓	Up to 23 (Shared limit)
m5ad.24xlarge	13750.00	1718.75	60000.00	✓	Up to 23 (Shared limit)
M5d					
m5d.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	Up to 26 (Shared limit)
m5d.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	Up to 26 (Shared limit)
m5d.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	Up to 26 (Shared limit)
m5d.4xlarge	4750.00	593.75	18750.00	✓	Up to 25 (Shared limit)
m5d.8xlarge	6800.00	850.00	30000.00	✓	Up to 25 (Shared limit)
m5d.12xlarge	9500.00	1187.50	40000.00	✓	Up to 25 (Shared limit)
m5d.16xlarge	13600.00	1700.00	60000.00	✓	Up to 23 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m5d.24xlarge	19000.00	2375.00	80000.00	✓	Up to 23 (Shared limit)
m5d.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
M5dn					
m5dn.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	Up to 26 (Shared limit)
m5dn.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	Up to 26 (Shared limit)
m5dn.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	Up to 26 (Shared limit)
m5dn.4xlarge	4750.00	593.75	18750.00	✓	Up to 25 (Shared limit)
m5dn.8xlarge	6800.00	850.00	30000.00	✓	Up to 25 (Shared limit)
m5dn.12xlarge	9500.00	1187.50	40000.00	✓	Up to 25 (Shared limit)
m5dn.16xlarge	13600.00	1700.00	60000.00	✓	Up to 23 (Shared limit)
m5dn.24xlarge	19000.00	2375.00	80000.00	✓	Up to 23 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m5dn.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

M5n

m5n.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	Up to 27 (Shared limit)
m5n.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	Up to 27 (Shared limit)
m5n.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	Up to 27 (Shared limit)
m5n.4xlarge	4750.00	593.75	18750.00	✓	Up to 27 (Shared limit)
m5n.8xlarge	6800.00	850.00	30000.00	✓	Up to 27 (Shared limit)
m5n.12xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
m5n.16xlarge	13600.00	1700.00	60000.00	✓	Up to 27 (Shared limit)
m5n.24xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
m5n.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

M5zn

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m5zn.large ¹	800.00 / 3170.00	100.00 / 396.25	3333.00 / 13333.00	✓	Up to 27 (Shared limit)
m5zn.xlarge ¹	1564.00 / 3170.00	195.50 / 396.25	6667.00 / 13333.00	✓	Up to 27 (Shared limit)
m5zn.2xlarge	3170.00	396.25	13333.00	✓	Up to 27 (Shared limit)
m5zn.3xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
m5zn.6xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
m5zn.12xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
m5zn.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
M6a					
m6a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
m6a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)
m6a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m6a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)
m6a.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
m6a.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
m6a.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)
m6a.24xlarge	30000.00	3750.00	120000.00	✓	Up to 27 (Shared limit)
m6a.32xlarge	40000.00	5000.00	160000.00	✓	Up to 27 (Shared limit)
m6a.48xlarge	40000.00	5000.00	240000.00	✓	Up to 27 (Shared limit)
m6a.metal	40000.00	5000.00	240000.00	✓	Up to 31 (Shared limit)
M6g					
m6g.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	Up to 27 (Shared limit)
m6g.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m6g.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	Up to 27 (Shared limit)
m6g.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	Up to 27 (Shared limit)
m6g.4xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
m6g.8xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
m6g.12xlarge	14250.00	1781.25	50000.00	✓	Up to 27 (Shared limit)
m6g.16xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
m6g.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
M6gd					
m6gd.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	Up to 26 (Shared limit)
m6gd.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	Up to 26 (Shared limit)
m6gd.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m6gd.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	Up to 26 (Shared limit)
m6gd.4xlarge	4750.00	593.75	20000.00	✓	Up to 26 (Shared limit)
m6gd.8xlarge	9500.00	1187.50	40000.00	✓	Up to 26 (Shared limit)
m6gd.12xlarge	14250.00	1781.25	50000.00	✓	Up to 25 (Shared limit)
m6gd.16xlarge	19000.00	2375.00	80000.00	✓	Up to 25 (Shared limit)
m6gd.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
M6i					
m6i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
m6i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)
m6i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)
m6i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m6i.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
m6i.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
m6i.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)
m6i.24xlarge	30000.00	3750.00	120000.00	✓	Up to 27 (Shared limit)
m6i.32xlarge	40000.00	5000.00	160000.00	✓	Up to 27 (Shared limit)
m6i.metal	40000.00	5000.00	160000.00	✓	Up to 31 (Shared limit)
M6id					
m6id.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 26 (Shared limit)
m6id.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 26 (Shared limit)
m6id.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 26 (Shared limit)
m6id.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m6id.8xlarge	10000.00	1250.00	40000.00	✓	Up to 26 (Shared limit)
m6id.12xlarge	15000.00	1875.00	60000.00	✓	Up to 25 (Shared limit)
m6id.16xlarge	20000.00	2500.00	80000.00	✓	Up to 25 (Shared limit)
m6id.24xlarge	30000.00	3750.00	120000.00	✓	Up to 23 (Shared limit)
m6id.32xlarge	40000.00	5000.00	160000.00	✓	Up to 23 (Shared limit)
m6id.metal	40000.00	5000.00	160000.00	✓	Up to 31 (Shared limit)
M6idn					
m6idn.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	Up to 26 (Shared limit)
m6idn.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	Up to 26 (Shared limit)
m6idn.2xlarge ¹	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	Up to 26 (Shared limit)
m6idn.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m6idn.8xlarge	25000.00	3125.00	100000.00	✓	Up to 26 (Shared limit)
m6idn.12xlarge	37500.00	4687.50	150000.00	✓	Up to 25 (Shared limit)
m6idn.16xlarge	50000.00	6250.00	200000.00	✓	Up to 25 (Shared limit)
m6idn.24xlarge	75000.00	9375.00	300000.00	✓	Up to 23 (Shared limit)
m6idn.32xlarge	100000.00	12500.00	400000.00	✓	Up to 23 (Shared limit)
m6idn.metal	100000.00	12500.00	400000.00	✓	Up to 31 (Shared limit)
M6in					
m6in.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	Up to 27 (Shared limit)
m6in.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	Up to 27 (Shared limit)
m6in.2xlarge ¹	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	Up to 27 (Shared limit)
m6in.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m6in.8xlarge	25000.00	3125.00	100000.00	✓	Up to 27 (Shared limit)
m6in.12xlarge	37500.00	4687.50	150000.00	✓	Up to 27 (Shared limit)
m6in.16xlarge	50000.00	6250.00	200000.00	✓	Up to 27 (Shared limit)
m6in.24xlarge	75000.00	9375.00	300000.00	✓	Up to 27 (Shared limit)
m6in.32xlarge	100000.00	12500.00	400000.00	✓	Up to 27 (Shared limit)
m6in.metal	100000.00	12500.00	400000.00	✓	Up to 31 (Shared limit)
M7a					
m7a.medium ¹	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
m7a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
m7a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m7a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
m7a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
m7a.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
m7a.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
m7a.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
m7a.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
m7a.32xlarge	40000.00	5000.00	160000.00	✓	88 (Dedicated limit)
m7a.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m7a.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
M7g					
m7g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	Up to 27 (Shared limit)
m7g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
m7g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)
m7g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)
m7g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)
m7g.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
m7g.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
m7g.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)
m7g.metal	20000.00	2500.00	80000.00	✓	Up to 31 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
M7gd					
m7gd.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	Up to 26 (Shared limit)
m7gd.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	Up to 26 (Shared limit)
m7gd.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 26 (Shared limit)
m7gd.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 26 (Shared limit)
m7gd.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
m7gd.8xlarge	10000.00	1250.00	40000.00	✓	Up to 26 (Shared limit)
m7gd.12xlarge	15000.00	1875.00	60000.00	✓	Up to 25 (Shared limit)
m7gd.16xlarge	20000.00	2500.00	80000.00	✓	Up to 25 (Shared limit)
m7gd.metal	20000.00	2500.00	80000.00	✓	Up to 31 (Shared limit)
M7i					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m7i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
m7i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
m7i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
m7i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
m7i.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
m7i.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
m7i.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
m7i.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m7i.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
m7i.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
m7i.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
M7i-flex					
m7i-flex.large ¹	312.00 / 10000.00	39.06 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
m7i-flex.xlarge ¹	625.00 / 10000.00	78.12 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
m7i-flex.2xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
m7i-flex.4xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
m7i-flex.8xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m7i-flex.12xlarge ¹	7500.00 / 15000.00	937.50 / 1875.00	30000.00 / 60000.00	✓	32 (Dedicated limit)
m7i-flex.16xlarge ¹	10000.00 / 20000.00	1250.00 / 2500.00	40000.00 / 80000.00	✓	48 (Dedicated limit)
M8g					
m8g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
m8g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
m8g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
m8g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
m8g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
m8g.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m8g.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
m8g.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
m8g.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
m8g.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
m8g.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
m8g.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
M8gd					
m8gd.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
m8gd.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m8gd.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
m8gd.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
m8gd.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
m8gd.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
m8gd.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
m8gd.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
m8gd.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
m8gd.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m8gd.meta l-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
m8gd.meta l-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
M8i					
m8i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
m8i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
m8i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
m8i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
m8i.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
m8i.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m8i.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
m8i.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
m8i.32xlarge	40000.00	5000.00	160000.00	✓	88 (Dedicated limit)
m8i.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)
m8i.96xlarge	80000.00	10000.00	480000.00	✓	128 (Dedicated limit)
m8i.metal-48xl	60000.00	7500.00	240000.00	✓	64 (Dedicated limit)
m8i.metal-96xl	80000.00	10000.00	480000.00	✓	79 (Dedicated limit)
M8i-flex					
m8i-flex.large ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m8i-flex.xlarge ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
m8i-flex.2xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
m8i-flex.4xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
m8i-flex.8xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
m8i-flex.12xlarge ¹	7500.00 / 15000.00	937.50 / 1875.00	30000.00 / 60000.00	✓	32 (Dedicated limit)
m8i-flex.16xlarge ¹	10000.00 / 20000.00	1250.00 / 2500.00	40000.00 / 80000.00	✓	48 (Dedicated limit)
Mac1					
mac1.metal	14000.00	1750.00	80000.00	✓	Up to 16 (Shared limit)
Mac2					
mac2.metal	10000.00	1250.00	55000.00	✓	Up to 10 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
Mac2-m1ultra					
mac2-m1ultra.metal	10000.00	1250.00	55000.00	✓	Up to 10 (Shared limit)
Mac2-m2					
mac2-m2.metal	8000.00	1000.00	55000.00	✓	Up to 10 (Shared limit)
Mac2-m2pro					
mac2-m2pro.metal	8000.00	1000.00	55000.00	✓	Up to 10 (Shared limit)
T2					
T3					
t3.nano ¹	43.00 / 2085.00	5.38 / 260.62	250.00 / 11800.00	✓	Up to 27 (Shared limit)
t3.micro ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11800.00	✓	Up to 27 (Shared limit)
t3.small ¹	174.00 / 2085.00	21.75 / 260.62	1000.00 / 11800.00	✓	Up to 27 (Shared limit)
t3.medium ¹	347.00 / 2085.00	43.38 / 260.62	2000.00 / 11800.00	✓	Up to 27 (Shared limit)
t3.large ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
t3.xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)
t3.2xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)
T3a					
t3a.nano ¹	45.00 / 2085.00	5.62 / 260.62	250.00 / 11800.00	✓	Up to 27 (Shared limit)
t3a.micro ¹	90.00 / 2085.00	11.25 / 260.62	500.00 / 11800.00	✓	Up to 27 (Shared limit)
t3a.small ¹	175.00 / 2085.00	21.88 / 260.62	1000.00 / 11800.00	✓	Up to 27 (Shared limit)
t3a.medium ¹	350.00 / 2085.00	43.75 / 260.62	2000.00 / 11800.00	✓	Up to 27 (Shared limit)
t3a.large ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)
t3a.xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)
t3a.2xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)
T4g					
t4g.nano ¹	43.00 / 2085.00	5.38 / 260.62	250.00 / 11800.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
t4g.micro ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11800.00	✓	Up to 27 (Shared limit)
t4g.small ¹	174.00 / 2085.00	21.75 / 260.62	1000.00 / 11800.00	✓	Up to 27 (Shared limit)
t4g.medium ¹	347.00 / 2085.00	43.38 / 260.62	2000.00 / 11800.00	✓	Up to 27 (Shared limit)
t4g.large ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)
t4g.xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)
t4g.2xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	Up to 27 (Shared limit)

Note

¹ These instances can support maximum performance for 30 minutes at least once every 24 hours, after which they revert to their baseline performance. Other instances can sustain the maximum performance indefinitely. If your workload requires sustained maximum performance for longer than 30 minutes, use one of these instances.

Instance store specifications

The following table shows the instance store volume configuration for supported instance types, along with the aggregated IOPS performance with 4,096 byte block size at queue depth saturation.

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
M5ad					
m5ad.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓
m5ad.xlarge	1 x 150 GB	NVMe SSD	59,000 / 29,000		✓
m5ad.2xlarge	1 x 300 GB	NVMe SSD	117,000 / 57,000		✓
m5ad.4xlarge	2 x 300 GB	NVMe SSD	234,000 / 114,000		✓
m5ad.8xlarge	2 x 600 GB	NVMe SSD	466,666 / 233,334		✓
m5ad.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
m5ad.16xlarge	4 x 600 GB	NVMe SSD	933,332 / 466,668		✓
m5ad.24xlarge	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
M5d					
m5d.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓
m5d.xlarge	1 x 150 GB	NVMe SSD	59,000 / 29,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
m5d.2xlarge	1 x 300 GB	NVMe SSD	117,000 / 57,000		✓
m5d.4xlarge	2 x 300 GB	NVMe SSD	234,000 / 114,000		✓
m5d.8xlarge	2 x 600 GB	NVMe SSD	466,666 / 233,334		✓
m5d.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
m5d.16xlarge	4 x 600 GB	NVMe SSD	933,332 / 466,668		✓
m5d.24xlarge	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
m5d.metal	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
M5dn					
m5dn.large	1 x 75 GB	NVMe SSD	29,000 / 14,500		✓
m5dn.xlarge	1 x 150 GB	NVMe SSD	58,000 / 29,000		✓
m5dn.2xlarge	1 x 300 GB	NVMe SSD	116,000 / 58,000		✓
m5dn.4xlarge	2 x 300 GB	NVMe SSD	232,000 / 116,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
m5dn.8xlarge	2 x 600 GB	NVMe SSD	464,000 / 232,000		✓
m5dn.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 350,000		✓
m5dn.16xlarge	4 x 600 GB	NVMe SSD	930,000 / 465,000		✓
m5dn.24xlarge	4 x 900 GB	NVMe SSD	1,400,000 / 700,000		✓
m5dn.metal	4 x 900 GB	NVMe SSD	1,400,000 / 700,000		✓
M6gd					
m6gd.medium	1 x 59 GB	NVMe SSD	13,438 / 5,625		✓
m6gd.large	1 x 118 GB	NVMe SSD	26,875 / 11,250		✓
m6gd.xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓
m6gd.2xlarge	1 x 474 GB	NVMe SSD	107,500 / 45,000		✓
m6gd.4xlarge	1 x 950 GB	NVMe SSD	215,000 / 90,000		✓
m6gd.8xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
m6gd.12xlarge	2 x 1425 GB	NVMe SSD	645,000 / 270,000		✓
m6gd.16xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
m6gd.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
M6id					
m6id.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
m6id.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
m6id.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
m6id.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
m6id.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
m6id.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
m6id.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
m6id.24xlarge	4 x 1425 GB	NVMe SSD	1,609,996 / 805,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
m6id.32xlarge	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
m6id.metal	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
M6idn					
m6idn.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
m6idn.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
m6idn.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
m6idn.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
m6idn.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
m6idn.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
m6idn.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
m6idn.24xlarge	4 x 1425 GB	NVMe SSD	1,609,996 / 805,000		✓
m6idn.32xlarge	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
m6idn.metal	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
M7gd					
m7gd.medium	1 x 59 GB	NVMe SSD	16,771 / 8,385		✓
m7gd.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
m7gd.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
m7gd.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
m7gd.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
m7gd.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
m7gd.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
m7gd.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
m7gd.metal	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
M8gd					
m8gd.medium	1 x 59 GB	NVMe SSD	16,771 / 8,385		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
m8gd.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
m8gd.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
m8gd.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
m8gd.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
m8gd.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
m8gd.12xlarge	3 x 950 GB	NVMe SSD	804,999 / 402,501		✓
m8gd.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
m8gd.24xlarge	3 x 1900 GB	NVMe SSD	1,609,998 / 805,002		✓
m8gd.48xlarge	6 x 1900 GB	NVMe SSD	3,219,996 / 1,610,004		✓
m8gd.metal-24xl	3 x 1900 GB	NVMe SSD	1,609,998 / 805,002		✓
m8gd.metal-48xl	6 x 1900 GB	NVMe SSD	3,219,996 / 1,610,004		✓

¹ Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see [Optimize disk performance for instance store volumes](#).

² For more information, see [Instance store volume TRIM support](#).

Security specifications

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
M5						
m5.large	✓	Instance store not supported	✗	✗	✓	✗
m5.xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5.2xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5.8xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5.12xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5.16xlarge	✓	Instance store not supported	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5.24xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5.metal	✓	Instance store not supported	✗	✗	✗	✗
M5a						
m5a.large	✓	Instance store not supported	✗	✗	✓	✗
m5a.xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5a.2xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5a.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5a.8xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5a.12xlarge	✓	Instance store not supported	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5a.16xlarge	✓	Instance store not supported	✗	✗	✓	✓
m5a.24xlarge	✓	Instance store not supported	✗	✗	✓	✓
M5ad						
m5ad.large	✓	✓	✗	✗	✓	✗
m5ad.xlarge	✓	✓	✗	✗	✓	✓
m5ad.2xlarge	✓	✓	✗	✗	✓	✓
m5ad.4xlarge	✓	✓	✗	✗	✓	✓
m5ad.8xlarge	✓	✓	✗	✗	✓	✓
m5ad.12xlarge	✓	✓	✗	✗	✓	✓
m5ad.16xlarge	✓	✓	✗	✗	✓	✓
m5ad.24xlarge	✓	✓	✗	✗	✓	✓
M5d						
m5d.large	✓	✓	✗	✗	✓	✗
m5d.xlarge	✓	✓	✗	✗	✓	✓
m5d.2xlarge	✓	✓	✗	✗	✓	✓
m5d.4xlarge	✓	✓	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5d.8xlarge	✓	✓	✗	✗	✓	✓
m5d.12xlarge	✓	✓	✗	✗	✓	✓
m5d.16xlarge	✓	✓	✗	✗	✓	✓
m5d.24xlarge	✓	✓	✗	✗	✓	✓
m5d.metal	✓	✓	✗	✗	✗	✗
M5dn						
m5dn.large	✓	✓	✓	✗	✓	✗
m5dn.xlarge	✓	✓	✓	✗	✓	✓
m5dn.2xlarge	✓	✓	✓	✗	✓	✓
m5dn.4xlarge	✓	✓	✓	✗	✓	✓
m5dn.8xlarge	✓	✓	✓	✗	✓	✓
m5dn.12xlarge	✓	✓	✓	✗	✓	✓
m5dn.16xlarge	✓	✓	✓	✗	✓	✓
m5dn.24xlarge	✓	✓	✓	✗	✓	✓
m5dn.metal	✓	✓	✓	✗	✗	✗
M5n						
m5n.large	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5n.xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5n.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5n.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5n.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5n.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5n.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5n.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5n.metal	✓	Instance store not supported	✓	✗	✗	✗
M5zn						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5zn.large	✓	Instance store not supported	✓	✗	✓	✗
m5zn.xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5zn.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5zn.3xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5zn.6xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5zn.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m5zn.metal	✓	Instance store not supported	✓	✗	✗	✗
M6a						
m6a.large	✓	Instance store not supported	✓	✓	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6a.xlarge	✓	Instance store not supported	✓	✓	✓	✓
m6a.2xlarge	✓	Instance store not supported	✓	✓	✓	✓
m6a.4xlarge	✓	Instance store not supported	✓	✓	✓	✓
m6a.8xlarge	✓	Instance store not supported	✓	✓	✓	✓
m6a.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6a.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6a.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6a.32xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6a.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6a.metal	✓	Instance store not supported	✓	✗	✗	✗
M6g						
m6g.medium	✓	Instance store not supported	✗	✗	✓	✗
m6g.large	✓	Instance store not supported	✗	✗	✓	✓
m6g.xlarge	✓	Instance store not supported	✗	✗	✓	✓
m6g.2xlarge	✓	Instance store not supported	✗	✗	✓	✓
m6g.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
m6g.8xlarge	✓	Instance store not supported	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6g.12xlarge	✓	Instance store not supported	✗	✗	✓	✓
m6g.16xlarge	✓	Instance store not supported	✗	✗	✓	✓
m6g.metal	✓	Instance store not supported	✗	✗	✗	✗
M6gd						
m6gd.medium	✓	✓	✗	✗	✓	✗
m6gd.large	✓	✓	✗	✗	✓	✓
m6gd.xlarge	✓	✓	✗	✗	✓	✓
m6gd.2xlarge	✓	✓	✗	✗	✓	✓
m6gd.4xlarge	✓	✓	✗	✗	✓	✓
m6gd.8xlarge	✓	✓	✗	✗	✓	✓
m6gd.12xlarge	✓	✓	✗	✗	✓	✓
m6gd.16xlarge	✓	✓	✗	✗	✓	✓
m6gd.metal	✓	✓	✗	✗	✗	✗
M6i						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6i.large	✓	Instance store not supported	✓	✗	✓	✗
m6i.xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6i.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6i.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6i.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6i.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6i.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6i.24xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6i.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6i.metal	✓	Instance store not supported	✓	✗	✗	✗
M6id						
m6id.large	✓	✓	✓	✗	✓	✗
m6id.xlarge	✓	✓	✓	✗	✓	✓
m6id.2xlarge	✓	✓	✓	✗	✓	✓
m6id.4xlarge	✓	✓	✓	✗	✓	✓
m6id.8xlarge	✓	✓	✓	✗	✓	✓
m6id.12xlarge	✓	✓	✓	✗	✓	✓
m6id.16xlarge	✓	✓	✓	✗	✓	✓
m6id.24xlarge	✓	✓	✓	✗	✓	✓
m6id.32xlarge	✓	✓	✓	✗	✓	✓
m6id.metal	✓	✓	✓	✗	✗	✗
M6idn						
m6idn.large	✓	✓	✓	✗	✓	✗
m6idn.xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6idn.2xlarge	✓	✓	✓	✗	✓	✓
m6idn.4xlarge	✓	✓	✓	✗	✓	✓
m6idn.8xlarge	✓	✓	✓	✗	✓	✓
m6idn.12xlarge	✓	✓	✓	✗	✓	✓
m6idn.16xlarge	✓	✓	✓	✗	✓	✓
m6idn.24xlarge	✓	✓	✓	✗	✓	✓
m6idn.32xlarge	✓	✓	✓	✗	✓	✓
m6idn.metal	✓	✓	✓	✗	✗	✗
M6in						
m6in.large	✓	Instance store not supported	✓	✗	✓	✗
m6in.xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6in.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6in.4xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6in.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6in.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6in.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6in.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6in.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
m6in.metal	✓	Instance store not supported	✓	✗	✗	✗
M7a						
m7a.medium	✓	Instance store not supported	✓	✗	✓	✗
m7a.large	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7a.xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7a.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7a.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7a.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7a.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7a.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7a.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7a.32xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7a.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7a.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
M7g						
m7g.medium	✓	Instance store not supported	✓	✗	✓	✗
m7g.large	✓	Instance store not supported	✓	✗	✓	✓
m7g.xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7g.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7g.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7g.8xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7g.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7g.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7g.metal	✓	Instance store not supported	✓	✗	✗	✗
M7gd						
m7gd.medium	✓	✓	✓	✗	✓	✗
m7gd.large	✓	✓	✓	✗	✓	✓
m7gd.xlarge	✓	✓	✓	✗	✓	✓
m7gd.2xlarge	✓	✓	✓	✗	✓	✓
m7gd.4xlarge	✓	✓	✓	✗	✓	✓
m7gd.8xlarge	✓	✓	✓	✗	✓	✓
m7gd.12xlarge	✓	✓	✓	✗	✓	✓
m7gd.16xlarge	✓	✓	✓	✗	✓	✓
m7gd.metal	✓	✓	✓	✗	✗	✗
M7i						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7i.large	✓	Instance store not supported	✓	✗	✓	✗
m7i.xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7i.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7i.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7i.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7i.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7i.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7i.24xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7i.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
m7i.metal-24xl	✓	Instance store not supported	✓	✗	✗	✗
m7i.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
M7i-flex						
m7i-flex.large	✓	Instance store not supported	✓	✗	✓	✗
m7i-flex.xlarge	✓	Instance store not supported	✓	✗	✓	✗
m7i-flex.2xlarge	✓	Instance store not supported	✓	✗	✓	✗
m7i-flex.4xlarge	✓	Instance store not supported	✓	✗	✓	✗
m7i-flex.8xlarge	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7i-flex.12xlarge	✓	Instance store not supported	✓	✗	✓	✗
m7i-flex.16xlarge	✓	Instance store not supported	✓	✗	✓	✗
M8g						
m8g.medium	✓	Instance store not supported	✓	✗	✓	✗
m8g.large	✓	Instance store not supported	✓	✗	✓	✓
m8g.xlarge	✓	Instance store not supported	✓	✗	✓	✓
m8g.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
m8g.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
m8g.8xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m8g.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
m8g.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
m8g.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
m8g.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
m8g.metal-24xl	✓	Instance store not supported	✓	✗	✗	✗
m8g.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
M8gd						
m8gd.medium	✓	✓	✓	✗	✓	✗
m8gd.large	✓	✓	✓	✗	✓	✓
m8gd.xlarge	✓	✓	✓	✗	✓	✓
m8gd.2xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m8gd.4xlarge	✓	✓	✓	✗	✓	✓
m8gd.8xlarge	✓	✓	✓	✗	✓	✓
m8gd.12xlarge	✓	✓	✓	✗	✓	✓
m8gd.16xlarge	✓	✓	✓	✗	✓	✓
m8gd.24xlarge	✓	✓	✓	✗	✓	✓
m8gd.48xlarge	✓	✓	✓	✗	✓	✓
m8gd.metal-24xl	✓	✓	✓	✗	✗	✗
m8gd.metal-48xl	✓	✓	✓	✗	✗	✗
M8i						
m8i.large	✓	Instance store not supported	✓	✗	✓	✗
m8i.xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.2xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.4xlarge	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m8i.8xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.12xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.16xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.24xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.32xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.48xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.96xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m8i.metal-96xl	✓	Instance store not supported	✓	✗	✗	✗
M8i-flex						
m8i-flex.large	✓	Instance store not supported	✓	✗	✓	✗
m8i-flex.xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i-flex.2xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i-flex.4xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i-flex.8xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i-flex.12xlarge	✓	Instance store not supported	✓	✗	✓	✗
m8i-flex.16xlarge	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
Mac1						
mac1.metal	✓	Instance store not supported	X	X	X	X
Mac2						
mac2.metal	✓	Instance store not supported	X	X	X	X
Mac2-m1ultra						
mac2-m1ultra.metal	✓	Instance store not supported	X	X	X	X
Mac2-m2						
mac2-m2.metal	✓	Instance store not supported	X	X	X	X
Mac2-m2pro						
mac2-m2pro.metal	✓	Instance store not supported	X	X	X	X
T2						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
t2.nano	✓	Instance store not supported	✗	✗	✗	✗
t2.micro	✓	Instance store not supported	✗	✗	✗	✗
t2.small	✓	Instance store not supported	✗	✗	✗	✗
t2.medium	✓	Instance store not supported	✗	✗	✗	✗
t2.large	✓	Instance store not supported	✗	✗	✗	✗
t2.xlarge	✓	Instance store not supported	✗	✗	✗	✗
t2.2xlarge	✓	Instance store not supported	✗	✗	✗	✗
T3						
t3.nano	✓	Instance store not supported	✗	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
t3.micro	✓	Instance store not supported	✗	✗	✓	✗
t3.small	✓	Instance store not supported	✗	✗	✓	✗
t3.medium	✓	Instance store not supported	✗	✗	✓	✗
t3.large	✓	Instance store not supported	✗	✗	✓	✗
t3.xlarge	✓	Instance store not supported	✗	✗	✓	✗
t3.2xlarge	✓	Instance store not supported	✗	✗	✓	✗
T3a						
t3a.nano	✓	Instance store not supported	✗	✗	✓	✗
t3a.micro	✓	Instance store not supported	✗	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
t3a.small	✓	Instance store not supported	✗	✗	✓	✗
t3a.medium	✓	Instance store not supported	✗	✗	✓	✗
t3a.large	✓	Instance store not supported	✗	✗	✓	✗
t3a.xlarge	✓	Instance store not supported	✗	✗	✓	✗
t3a.2xlarge	✓	Instance store not supported	✗	✗	✓	✗
T4g						
t4g.nano	✓	Instance store not supported	✗	✗	✓	✗
t4g.micro	✓	Instance store not supported	✗	✗	✓	✗
t4g.small	✓	Instance store not supported	✗	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
t4g.medium	✓	Instance store not supported	✗	✗	✓	✗
t4g.large	✓	Instance store not supported	✗	✗	✓	✗
t4g.xlarge	✓	Instance store not supported	✗	✗	✓	✗
t4g.2xlarge	✓	Instance store not supported	✗	✗	✓	✗

Specifications for Amazon EC2 compute optimized instances

Compute optimized instances are designed for compute intensive applications that benefit from high performance processors. These instances are ideal for batch processing workloads, media transcoding, high performance web servers, high performance computing (HPC), scientific modeling, dedicated gaming servers, ad server engines, and machine learning inference.

For information on previous generation instance types of this category, such as C4 instances, see [Specifications for Amazon EC2 previous generation instances](#).

Contents

- [Instance families and instance types](#)
- [Instance family summary](#)
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- [Instance store specifications](#)
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Pricing

For pricing information, see [Amazon EC2 On-Demand Pricing](#).

Instance families and instance types

Instance family	Available instance types
C5	c5.large c5.xlarge c5.2xlarge c5.4xlarge c5.9xlarge c5.12xlarge c5.18xlarge c5.24xlarge c5.metal
C5a	c5a.large c5a.xlarge c5a.2xlarge c5a.4xlarge c5a.8xlarge c5a.12xlarge c5a.16xlarge c5a.24xlarge
C5ad	c5ad.large c5ad.xlarge c5ad.2xlarge c5ad.4xlarge c5ad.8xlarge c5ad.12xlarge c5ad.16xlarge c5ad.24xlarge
C5d	c5d.large c5d.xlarge c5d.2xlarge c5d.4xlarge c5d.9xlarge c5d.12xlarge c5d.18xlarge c5d.24xlarge c5d.metal
C5n	c5n.large c5n.xlarge c5n.2xlarge c5n.4xlarge c5n.9xlarge c5n.18xlarge c5n.metal
C6a	c6a.large c6a.xlarge c6a.2xlarge c6a.4xlarge c6a.8xlarge c6a.12xlarge c6a.16xlarge c6a.24xlarge c6a.32xlarge c6a.48xlarge c6a.metal
C6g	c6g.medium c6g.large c6g.xlarge c6g.2xlarge c6g.4xlarge c6g.8xlarge c6g.12xlarge c6g.16xlarge c6g.metal
C6gd	c6gd.medium c6gd.large c6gd.xlarge c6gd.2xlarge c6gd.4xlarge c6gd.8xlarge c6gd.12xlarge c6gd.16xlarge c6gd.metal

Instance family	Available instance types
C6gn	c6gn.medium c6gn.large c6gn.xlarge c6gn.2xlarge c6gn.4xlarge c6gn.8xlarge c6gn.12xlarge c6gn.16xlarge
C6i	c6i.large c6i.xlarge c6i.2xlarge c6i.4xlarge c6i.8xlarge c6i.12xlarge c6i.16xlarge c6i.24xlarge c6i.32xlarge c6i.metal
C6id	c6id.large c6id.xlarge c6id.2xlarge c6id.4xlarge c6id.8xlarge c6id.12xlarge c6id.16xlarge c6id.24xlarge c6id.32xlarge c6id.metal
C6in	c6in.large c6in.xlarge c6in.2xlarge c6in.4xlarge c6in.8xlarge c6in.12xlarge c6in.16xlarge c6in.24xlarge c6in.32xlarge c6in.metal
C7a	c7a.medium c7a.large c7a.xlarge c7a.2xlarge c7a.4xlarge c7a.8xlarge c7a.12xlarge c7a.16xlarge c7a.24xlarge c7a.32xlarge c7a.48xlarge c7a.metal-48xl
C7g	c7g.medium c7g.large c7g.xlarge c7g.2xlarge c7g.4xlarge c7g.8xlarge c7g.12xlarge c7g.16xlarge c7g.metal
C7gd	c7gd.medium c7gd.large c7gd.xlarge c7gd.2xlarge c7gd.4xlarge c7gd.8xlarge c7gd.12xlarge c7gd.16xlarge c7gd.metal
C7gn	c7gn.medium c7gn.large c7gn.xlarge c7gn.2xlarge c7gn.4xlarge c7gn.8xlarge c7gn.12xlarge c7gn.16xlarge c7gn.metal
C7i	c7i.large c7i.xlarge c7i.2xlarge c7i.4xlarge c7i.8xlarge c7i.12xlarge c7i.16xlarge c7i.24xlarge c7i.48xlarge c7i.metal-24xl c7i.metal-48xl

Instance family	Available instance types
C7i-flex	c7i-flex.large c7i-flex.xlarge c7i-flex.2xlarge c7i-flex.4xlarge c7i-flex.8xlarge c7i-flex.12xlarge c7i-flex.16xlarge
C8g	c8g.medium c8g.large c8g.xlarge c8g.2xlarge c8g.4xlarge c8g.8xlarge c8g.12xlarge c8g.16xlarge c8g.24xlarge c8g.48xlarge c8g.metal-24x1 c8g.metal-48x1
C8gd	c8gd.medium c8gd.large c8gd.xlarge c8gd.2xlarge c8gd.4xlarge c8gd.8xlarge c8gd.12xlarge c8gd.16xlarge c8gd.24xlarge c8gd.48xlarge c8gd.metal-24x1 c8gd.metal-48x1
C8gn	c8gn.medium c8gn.large c8gn.xlarge c8gn.2xlarge c8gn.4xlarge c8gn.8xlarge c8gn.12xlarge c8gn.16xlarge c8gn.24xlarge c8gn.48xlarge c8gn.metal-24x1 c8gn.metal-48x1

Instance family summary

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
C5	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C5a	Nitro v2	AMD (x86_64)	x	x	✓	x	Windows Linux
C5ad	Nitro v2	AMD (x86_64)	x	x	✓	x	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
C5d	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C5n	Nitro v3	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
C6a	Nitro v4	AMD (x86_64)	✓	✓	✓	✓	Windows Linux
C6g	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C6gd	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C6gn	Nitro v4	AWS Graviton (arm64)	✗	✓	✓	✓	Linux
C6i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C6id	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C6in	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C7a	Nitro v4	AMD (x86_64)	✓	✓	✓	✓	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
C7g	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C7gd	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C7gn	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C7i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C7i-flex	Nitro v4	Intel (x86_64)	✗	✗	✓	✓	Windows Linux
C8g	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C8gd	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C8gn	Nitro v6	AWS Graviton (arm64)	✓	✓	✓	✓	Linux

Performance specifications

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
C5							
c5.large	4.00	Intel Xeon Platinum 8124M	2	1	2	x	x
c5.xlarge	8.00	Intel Xeon Platinum 8124M	4	2	2	x	x
c5.2xlarge	16.00	Intel Xeon Platinum 8124M	8	4	2	x	x
c5.4xlarge	32.00	Intel Xeon Platinum 8124M	16	8	2	x	x
c5.9xlarge	72.00	Intel Xeon Platinum 8124M	36	18	2	x	x
c5.12xlarge	96.00	2nd Gen Intel Xeon Platinum 8275CL	48	24	2	x	x
c5.18xlarge	144.00	Intel Xeon Platinum 8124M	72	36	2	x	x
c5.24xlarge	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	x	x
c5.metal	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	x	x
C5a							
c5a.large	4.00	2nd Gen AMD EPYC 7R32	2	1	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c5a.xlarge	8.00	2nd Gen AMD EPYC 7R32	4	2	2	x	x
c5a.2xlarge	16.00	2nd Gen AMD EPYC 7R32	8	4	2	x	x
c5a.4xlarge	32.00	2nd Gen AMD EPYC 7R32	16	8	2	x	x
c5a.8xlarge	64.00	2nd Gen AMD EPYC 7R32	32	16	2	x	x
c5a.12xlarge	96.00	2nd Gen AMD EPYC 7R32	48	24	2	x	x
c5a.16xlarge	128.00	2nd Gen AMD EPYC 7R32	64	32	2	x	x
c5a.24xlarge	192.00	2nd Gen AMD EPYC 7R32	96	48	2	x	x
C5ad							
c5ad.large	4.00	2nd Gen AMD EPYC 7R32	2	1	2	x	x
c5ad.xlarge	8.00	2nd Gen AMD EPYC 7R32	4	2	2	x	x
c5ad.2xlarge	16.00	2nd Gen AMD EPYC 7R32	8	4	2	x	x
c5ad.4xlarge	32.00	2nd Gen AMD EPYC 7R32	16	8	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
c5ad.8xlarge	64.00	2nd Gen AMD EPYC 7R32	32	16	2	x	x
c5ad.12xlarge	96.00	2nd Gen AMD EPYC 7R32	48	24	2	x	x
c5ad.16xlarge	128.00	2nd Gen AMD EPYC 7R32	64	32	2	x	x
c5ad.24xlarge	192.00	2nd Gen AMD EPYC 7R32	96	48	2	x	x
C5d							
c5d.large	4.00	Intel Xeon Platinum 8124M	2	1	2	x	x
c5d.xlarge	8.00	Intel Xeon Platinum 8124M	4	2	2	x	x
c5d.2xlarge	16.00	Intel Xeon Platinum 8124M	8	4	2	x	x
c5d.4xlarge	32.00	Intel Xeon Platinum 8124M	16	8	2	x	x
c5d.9xlarge	72.00	Intel Xeon Platinum 8124M	36	18	2	x	x
c5d.12xlarge	96.00	2nd Gen Intel Xeon Platinum 8275CL	48	24	2	x	x
c5d.18xlarge	144.00	Intel Xeon Platinum 8124M	72	36	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
c5d.24xlarge	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	x	x
c5d.metal	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	x	x
C5n							
c5n.large	5.25	Intel Xeon Platinum 8124M	2	1	2	x	x
c5n.xlarge	10.50	Intel Xeon Platinum 8124M	4	2	2	x	x
c5n.2xlarge	21.00	Intel Xeon Platinum 8124M	8	4	2	x	x
c5n.4xlarge	42.00	Intel Xeon Platinum 8124M	16	8	2	x	x
c5n.9xlarge	96.00	Intel Xeon Platinum 8124M	36	18	2	x	x
c5n.18xlarge	192.00	Intel Xeon Platinum 8124M	72	36	2	x	x
c5n.metal	192.00	Intel Xeon Platinum 8124M	72	36	2	x	x
C6a							
c6a.large	4.00	AMD EPYC 7R13	2	1	2	x	x
c6a.xlarge	8.00	AMD EPYC 7R13	4	2	2	x	x
c6a.2xlarge	16.00	AMD EPYC 7R13	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c6a.4xlarge	32.00	AMD EPYC 7R13	16	8	2	X	X
c6a.8xlarge	64.00	AMD EPYC 7R13	32	16	2	X	X
c6a.12xlarge	96.00	AMD EPYC 7R13	48	24	2	X	X
c6a.16xlarge	128.00	AMD EPYC 7R13	64	32	2	X	X
c6a.24xlarge	192.00	AMD EPYC 7R13	96	48	2	X	X
c6a.32xlarge	256.00	AMD EPYC 7R13	128	64	2	X	X
c6a.48xlarge	384.00	AMD EPYC 7R13	192	96	2	X	X
c6a.metal	384.00	AMD EPYC 7R13	192	96	2	X	X
C6g							
c6g.medium	2.00	AWS Graviton2 Processor	1	1	1	X	X
c6g.large	4.00	AWS Graviton2 Processor	2	2	1	X	X
c6g.xlarge	8.00	AWS Graviton2 Processor	4	4	1	X	X
c6g.2xlarge	16.00	AWS Graviton2 Processor	8	8	1	X	X
c6g.4xlarge	32.00	AWS Graviton2 Processor	16	16	1	X	X
c6g.8xlarge	64.00	AWS Graviton2 Processor	32	32	1	X	X

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c6g.12xlarge	96.00	AWS Graviton2 Processor	48	48	1	x	x
c6g.16xlarge	128.00	AWS Graviton2 Processor	64	64	1	x	x
c6g.metal	128.00	AWS Graviton2 Processor	64	64	1	x	x
C6gd							
c6gd.medium	2.00	AWS Graviton2 Processor	1	1	1	x	x
c6gd.large	4.00	AWS Graviton2 Processor	2	2	1	x	x
c6gd.xlarge	8.00	AWS Graviton2 Processor	4	4	1	x	x
c6gd.2xlarge	16.00	AWS Graviton2 Processor	8	8	1	x	x
c6gd.4xlarge	32.00	AWS Graviton2 Processor	16	16	1	x	x
c6gd.8xlarge	64.00	AWS Graviton2 Processor	32	32	1	x	x
c6gd.12xlarge	96.00	AWS Graviton2 Processor	48	48	1	x	x
c6gd.16xlarge	128.00	AWS Graviton2 Processor	64	64	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c6gd.metal	128.00	AWS Graviton2 Processor	64	64	1	x	x
C6gn							
c6gn.medium	2.00	AWS Graviton2 Processor	1	1	1	x	x
c6gn.large	4.00	AWS Graviton2 Processor	2	2	1	x	x
c6gn.xlarge	8.00	AWS Graviton2 Processor	4	4	1	x	x
c6gn.2xlarge	16.00	AWS Graviton2 Processor	8	8	1	x	x
c6gn.4xlarge	32.00	AWS Graviton2 Processor	16	16	1	x	x
c6gn.8xlarge	64.00	AWS Graviton2 Processor	32	32	1	x	x
c6gn.12xlarge	96.00	AWS Graviton2 Processor	48	48	1	x	x
c6gn.16xlarge	128.00	AWS Graviton2 Processor	64	64	1	x	x
C6i							
c6i.large	4.00	Intel Xeon Ice Lake	2	1	2	x	x
c6i.xlarge	8.00	Intel Xeon Ice Lake	4	2	2	x	x
c6i.2xlarge	16.00	Intel Xeon Ice Lake	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c6i.4xlarge	32.00	Intel Xeon Ice Lake	16	8	2	x	x
c6i.8xlarge	64.00	Intel Xeon Ice Lake	32	16	2	x	x
c6i.12xlarge	96.00	Intel Xeon Ice Lake	48	24	2	x	x
c6i.16xlarge	128.00	Intel Xeon Ice Lake	64	32	2	x	x
c6i.24xlarge	192.00	Intel Xeon Ice Lake	96	48	2	x	x
c6i.32xlarge	256.00	Intel Xeon Ice Lake	128	64	2	x	x
c6i.metal	256.00	Intel Xeon Ice Lake	128	64	2	x	x
C6id							
c6id.large	4.00	Intel Xeon Ice Lake	2	1	2	x	x
c6id.xlarge	8.00	Intel Xeon Ice Lake	4	2	2	x	x
c6id.2xlarge	16.00	Intel Xeon Ice Lake	8	4	2	x	x
c6id.4xlarge	32.00	Intel Xeon Ice Lake	16	8	2	x	x
c6id.8xlarge	64.00	Intel Xeon Ice Lake	32	16	2	x	x
c6id.12xlarge	96.00	Intel Xeon Ice Lake	48	24	2	x	x
c6id.16xlarge	128.00	Intel Xeon Ice Lake	64	32	2	x	x
c6id.24xlarge	192.00	Intel Xeon Ice Lake	96	48	2	x	x
c6id.32xlarge	256.00	Intel Xeon Ice Lake	128	64	2	x	x
c6id.metal	256.00	Intel Xeon Ice Lake	128	64	2	x	x
C6in							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c6in.large	4.00	Intel Xeon Ice Lake	2	1	2	x	x
c6in.xlarge	8.00	Intel Xeon Ice Lake	4	2	2	x	x
c6in.2xlarge	16.00	Intel Xeon Ice Lake	8	4	2	x	x
c6in.4xlarge	32.00	Intel Xeon Ice Lake	16	8	2	x	x
c6in.8xlarge	64.00	Intel Xeon Ice Lake	32	16	2	x	x
c6in.12xlarge	96.00	Intel Xeon Ice Lake	48	24	2	x	x
c6in.16xlarge	128.00	Intel Xeon Ice Lake	64	32	2	x	x
c6in.24xlarge	192.00	Intel Xeon Ice Lake	96	48	2	x	x
c6in.32xlarge	256.00	Intel Xeon Ice Lake	128	64	2	x	x
c6in.metal	256.00	Intel Xeon Ice Lake	128	64	2	x	x
C7a							
c7a.medium	2.00	AMD EPYC 9R14	1	1	1	x	x
c7a.large	4.00	AMD EPYC 9R14	2	2	1	x	x
c7a.xlarge	8.00	AMD EPYC 9R14	4	4	1	x	x
c7a.2xlarge	16.00	AMD EPYC 9R14	8	8	1	x	x
c7a.4xlarge	32.00	AMD EPYC 9R14	16	16	1	x	x
c7a.8xlarge	64.00	AMD EPYC 9R14	32	32	1	x	x
c7a.12xlarge	96.00	AMD EPYC 9R14	48	48	1	x	x
c7a.16xlarge	128.00	AMD EPYC 9R14	64	64	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c7a.24xlarge	192.00	AMD EPYC 9R14	96	96	1	x	x
c7a.32xlarge	256.00	AMD EPYC 9R14	128	128	1	x	x
c7a.48xlarge	384.00	AMD EPYC 9R14	192	192	1	x	x
c7a.metal-48xl	384.00	AMD EPYC 9R14	192	192	1	x	x
C7g							
c7g.medium	2.00	AWS Graviton3 Processor	1	1	1	x	x
c7g.large	4.00	AWS Graviton3 Processor	2	2	1	x	x
c7g.xlarge	8.00	AWS Graviton3 Processor	4	4	1	x	x
c7g.2xlarge	16.00	AWS Graviton3 Processor	8	8	1	x	x
c7g.4xlarge	32.00	AWS Graviton3 Processor	16	16	1	x	x
c7g.8xlarge	64.00	AWS Graviton3 Processor	32	32	1	x	x
c7g.12xlarge	96.00	AWS Graviton3 Processor	48	48	1	x	x
c7g.16xlarge	128.00	AWS Graviton3 Processor	64	64	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
c7g.metal	128.00	AWS Graviton3 Processor	64	64	1	x	x
C7gd							
c7gd.medium	2.00	AWS Graviton3 Processor	1	1	1	x	x
c7gd.large	4.00	AWS Graviton3 Processor	2	2	1	x	x
c7gd.xlarge	8.00	AWS Graviton3 Processor	4	4	1	x	x
c7gd.2xlarge	16.00	AWS Graviton3 Processor	8	8	1	x	x
c7gd.4xlarge	32.00	AWS Graviton3 Processor	16	16	1	x	x
c7gd.8xlarge	64.00	AWS Graviton3 Processor	32	32	1	x	x
c7gd.12xlarge	96.00	AWS Graviton3 Processor	48	48	1	x	x
c7gd.16xlarge	128.00	AWS Graviton3 Processor	64	64	1	x	x
c7gd.metal	128.00	AWS Graviton3 Processor	64	64	1	x	x
C7gn							
c7gn.medium	2.00	AWS Graviton3E Processor	1	1	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
c7gn.large	4.00	AWS Graviton3E Processor	2	2	1	x	x
c7gn.xlarge	8.00	AWS Graviton3E Processor	4	4	1	x	x
c7gn.2xlarge	16.00	AWS Graviton3E Processor	8	8	1	x	x
c7gn.4xlarge	32.00	AWS Graviton3E Processor	16	16	1	x	x
c7gn.8xlarge	64.00	AWS Graviton3E Processor	32	32	1	x	x
c7gn.12xlarge	96.00	AWS Graviton3E Processor	48	48	1	x	x
c7gn.16xlarge	128.00	AWS Graviton3E Processor	64	64	1	x	x
c7gn.metal	128.00	AWS Graviton3E Processor	64	64	1	x	x
C7i							
c7i.large	4.00	Intel Xeon Sapphire Rapids	2	1	2	x	x
c7i.xlarge	8.00	Intel Xeon Sapphire Rapids	4	2	2	x	x
c7i.2xlarge	16.00	Intel Xeon Sapphire Rapids	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c7i.4xlarge	32.00	Intel Xeon Sapphire Rapids	16	8	2	x	x
c7i.8xlarge	64.00	Intel Xeon Sapphire Rapids	32	16	2	x	x
c7i.12xlarge	96.00	Intel Xeon Sapphire Rapids	48	24	2	x	x
c7i.16xlarge	128.00	Intel Xeon Sapphire Rapids	64	32	2	x	x
c7i.24xlarge	192.00	Intel Xeon Sapphire Rapids	96	48	2	x	x
c7i.48xlarge	384.00	Intel Xeon Sapphire Rapids	192	96	2	x	x
c7i.metal-24xl	192.00	Intel Xeon Sapphire Rapids	96	48	2	x	x
c7i.metal-48xl	384.00	Intel Xeon Sapphire Rapids	192	96	2	x	x
C7i-flex							
c7i-flex.large	4.00	Intel Xeon Sapphire Rapids	2	1	2	x	x
c7i-flex.xlarge	8.00	Intel Xeon Sapphire Rapids	4	2	2	x	x
c7i-flex.2xlarge	16.00	Intel Xeon Sapphire Rapids	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c7i-flex.4xlarge	32.00	Intel Xeon Sapphire Rapids	16	8	2	x	x
c7i-flex.8xlarge	64.00	Intel Xeon Sapphire Rapids	32	16	2	x	x
c7i-flex.12xlarge	96.00	Intel Xeon Sapphire Rapids	48	24	2	x	x
c7i-flex.16xlarge	128.00	Intel Xeon Sapphire Rapids	64	32	2	x	x
C8g							
c8g.medium	2.00	AWS Graviton4 Processor	1	1	1	x	x
c8g.large	4.00	AWS Graviton4 Processor	2	2	1	x	x
c8g.xlarge	8.00	AWS Graviton4 Processor	4	4	1	x	x
c8g.2xlarge	16.00	AWS Graviton4 Processor	8	8	1	x	x
c8g.4xlarge	32.00	AWS Graviton4 Processor	16	16	1	x	x
c8g.8xlarge	64.00	AWS Graviton4 Processor	32	32	1	x	x
c8g.12xlarge	96.00	AWS Graviton4 Processor	48	48	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c8g.16xlarge	128.00	AWS Graviton4 Processor	64	64	1	x	x
c8g.24xlarge	192.00	AWS Graviton4 Processor	96	96	1	x	x
c8g.48xlarge	384.00	AWS Graviton4 Processor	192	192	1	x	x
c8g.metal-24xl	192.00	AWS Graviton4 Processor	96	96	1	x	x
c8g.metal-48xl	384.00	AWS Graviton4 Processor	192	192	1	x	x
C8gd							
c8gd.medium	2.00	AWS Graviton4 Processor	1	1	1	x	x
c8gd.large	4.00	AWS Graviton4 Processor	2	2	1	x	x
c8gd.xlarge	8.00	AWS Graviton4 Processor	4	4	1	x	x
c8gd.2xlarge	16.00	AWS Graviton4 Processor	8	8	1	x	x
c8gd.4xlarge	32.00	AWS Graviton4 Processor	16	16	1	x	x
c8gd.8xlarge	64.00	AWS Graviton4 Processor	32	32	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
c8gd.12xlarge	96.00	AWS Graviton4 Processor	48	48	1	x	x
c8gd.16xlarge	128.00	AWS Graviton4 Processor	64	64	1	x	x
c8gd.24xlarge	192.00	AWS Graviton4 Processor	96	96	1	x	x
c8gd.48xlarge	384.00	AWS Graviton4 Processor	192	192	1	x	x
c8gd.meta-l-24xlarge	192.00	AWS Graviton4 Processor	96	96	1	x	x
c8gd.meta-l-48xlarge	384.00	AWS Graviton4 Processor	192	192	1	x	x
C8gn							
c8gn.medium	2.00	AWS Graviton4 Processor	1	1	1	x	x
c8gn.large	4.00	AWS Graviton4 Processor	2	2	1	x	x
c8gn.xlarge	8.00	AWS Graviton4 Processor	4	4	1	x	x
c8gn.2xlarge	16.00	AWS Graviton4 Processor	8	8	1	x	x
c8gn.4xlarge	32.00	AWS Graviton4 Processor	16	16	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
c8gn.8xlarge	64.00	AWS Graviton4 Processor	32	32	1	x	x
c8gn.12xlarge	96.00	AWS Graviton4 Processor	48	48	1	x	x
c8gn.16xlarge	128.00	AWS Graviton4 Processor	64	64	1	x	x
c8gn.24xlarge	192.00	AWS Graviton4 Processor	96	96	1	x	x
c8gn.48xlarge	384.00	AWS Graviton4 Processor	192	192	1	x	x
c8gn.meta-l-24xl	192.00	AWS Graviton4 Processor	96	96	1	x	x
c8gn.meta-l-48xl	384.00	AWS Graviton4 Processor	192	192	1	x	x

Network specifications

Note

C8g, C8gd instance types support configurable bandwidth weightings. With these instance types, you can optimize an instance's bandwidth for either networking performance or Amazon EBS performance. The following table shows the default networking bandwidth performance for these instance types. For the supported configurable weightings, see [Configurable bandwidth weighting preferences](#).

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
C5								
c5.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
c5.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
c5.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
c5.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
c5.9xlarge	12 Gigabit	x	✓	x	1	8	30	✓
c5.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓
c5.18xlarge	25 Gigabit	x	✓	x	1	15	50	✓
c5.24xlarge	25 Gigabit	x	✓	x	1	15	50	✓
c5.metal	25 Gigabit	x	✓	x	1	15	50	✓
C5a								
c5a.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
c5a.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
c5a.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
c5a.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
c5a.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
c5a.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓
c5a.16xlarge	20 Gigabit	x	✓	x	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c5a.24xlarge	20 Gigabit	x	✓	x	1	15	50	✓
C5ad								
c5ad.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
c5ad.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
c5ad.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
c5ad.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
c5ad.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
c5ad.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓
c5ad.16xlarge	20 Gigabit	x	✓	x	1	15	50	✓
c5ad.24xlarge	20 Gigabit	x	✓	x	1	15	50	✓
C5d								
c5d.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
c5d.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
c5d.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
c5d.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
c5d.9xlarge	12 Gigabit	x	✓	x	1	8	30	✓
c5d.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓
c5d.18xlarge	25 Gigabit	x	✓	x	1	15	50	✓
c5d.24xlarge	25 Gigabit	x	✓	x	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c5d.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
C5n								
c5n.large ¹	3.0 / 25.0	✗	✓	✗	1	3	10	✓
c5n.xlarge ¹	5.0 / 25.0	✗	✓	✗	1	4	15	✓
c5n.2xlarge ¹	10.0 / 25.0	✗	✓	✗	1	4	15	✓
c5n.4xlarge ¹	15.0 / 25.0	✗	✓	✗	1	8	30	✓
c5n.9xlarge	50 Gigabit	✓	✓	✗	1	8	30	✓
c5n.18xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
c5n.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
C6a								
c6a.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
c6a.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
c6a.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
c6a.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
c6a.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
c6a.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
c6a.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
c6a.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
c6a.32xlarge	50 Gigabit	✗	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c6a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c6a.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
C6g								
c6g.medium ¹	0.5 / 10.0	✗	✓	✗	1	2	4	✓
c6g.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
c6g.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
c6g.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
c6g.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
c6g.8xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
c6g.12xlarge	20 Gigabit	✗	✓	✗	1	8	30	✓
c6g.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
c6g.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
C6gd								
c6gd.medium ¹	0.5 / 10.0	✗	✓	✗	1	2	4	✓
c6gd.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
c6gd.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
c6gd.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
c6gd.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c6gd.8xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
c6gd.12xlarge	20 Gigabit	✗	✓	✗	1	8	30	✓
c6gd.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
c6gd.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
C6gn								
c6gn.medium ¹	1.6 / 16.0	✗	✓	✗	1	2	4	✓
c6gn.large ¹	3.0 / 25.0	✗	✓	✗	1	3	10	✓
c6gn.xlarge ¹	6.3 / 25.0	✗	✓	✗	1	4	15	✓
c6gn.2xlarge ¹	12.5 / 25.0	✗	✓	✗	1	4	15	✓
c6gn.4xlarge	25 Gigabit	✗	✓	✓	1	8	30	✓
c6gn.8xlarge	50 Gigabit	✗	✓	✓	1	8	30	✓
c6gn.12xlarge	75 Gigabit	✗	✓	✓	1	8	30	✓
c6gn.16xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
C6i								
c6i.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
c6i.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
c6i.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
c6i.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c6i.8xlarge	12.5 Gigabit	✗	✓	✓	1	8	30	✓
c6i.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
c6i.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
c6i.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
c6i.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c6i.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
C6id								
c6id.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
c6id.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
c6id.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
c6id.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
c6id.8xlarge	12.5 Gigabit	✗	✓	✓	1	8	30	✓
c6id.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
c6id.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
c6id.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
c6id.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c6id.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
C6in								
c6in.large ¹	3.125 / 25.0	✗	✓	✗	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c6in.xlarge ¹	6.25 / 30.0	✗	✓	✗	1	4	15	✓
c6in.2xlarge ¹	12.5 / 40.0	✗	✓	✗	1	4	15	✓
c6in.4xlarge ¹	25.0 / 50.0	✗	✓	✗	1	8	30	✓
c6in.8xlarge	50 Gigabit	✗	✓	✓	1	8	30	✓
c6in.12xlarge	75 Gigabit	✗	✓	✓	1	8	30	✓
c6in.16xlarge	100 Gigabit	✗	✓	✓	1	15	50	✓
c6in.24xlarge	150 Gigabit	✗	✓	✓	1	15	50	✓
c6in.32xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
c6in.metal	200 Gigabit	✓	✓	✓	2	16	50	✓
C7a								
c7a.medium ¹	0.39 / 12.5	✗	✓	✗	1	2	4	✓
c7a.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
c7a.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
c7a.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
c7a.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
c7a.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
c7a.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
c7a.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
c7a.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c7a.32xlarge	50 Gigabit	✗	✓	✓	1	15	50	✓
c7a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c7a.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
C7g								
c7g.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
c7g.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
c7g.xlarge ¹	1.876 / 12.5	✗	✓	✗	1	4	15	✓
c7g.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
c7g.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
c7g.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
c7g.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
c7g.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓
c7g.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
C7gd								
c7gd.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
c7gd.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
c7gd.xlarge ¹	1.876 / 12.5	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c7gd.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
c7gd.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
c7gd.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
c7gd.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
c7gd.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓
c7gd.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
C7gn								
c7gn.medium ¹	3.125 / 25.0	✗	✓	✗	1	2	4	✓
c7gn.large ¹	6.25 / 30.0	✗	✓	✗	1	3	10	✓
c7gn.xlarge ¹	12.5 / 40.0	✗	✓	✗	1	4	15	✓
c7gn.2xlarge ¹	25.0 / 50.0	✗	✓	✗	1	4	15	✓
c7gn.4xlarge	50 Gigabit	✗	✓	✓	1	8	30	✓
c7gn.8xlarge	100 Gigabit	✗	✓	✓	1	8	30	✓
c7gn.12xlarge	150 Gigabit	✗	✓	✓	1	8	30	✓
c7gn.16xlarge	200 Gigabit	✓	✓	✓	1	15	50	✓
c7gn.metal	200 Gigabit	✓	✓	✓	1	15	50	✓
C7i								
c7i.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c7i.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
c7i.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
c7i.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
c7i.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
c7i.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
c7i.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
c7i.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
c7i.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c7i.metal-24xl	37.5 Gigabit	✗	✓	✓	1	15	50	✓
c7i.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
C7i-flex								
c7i-flex.large ¹	0.39 / 12.5	✗	✓	✗	1	3	10	✓
c7i-flex.xlarge ¹	0.781 / 12.5	✗	✓	✗	1	4	15	✓
c7i-flex.2xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
c7i-flex.4xlarge ¹	3.125 / 12.5	✗	✓	✗	1	8	30	✓
c7i-flex.8xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c7i-flex.12xlarge ¹	9.375 / 18.75	✗	✓	✗	1	8	30	✓
c7i-flex.16xlarge ¹	12.5 / 25.0	✗	✓	✗	1	15	50	✓
C8g								
c8g.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
c8g.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
c8g.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	15	✓
c8g.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
c8g.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
c8g.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
c8g.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
c8g.16xlarge	30 Gigabit	✗	✓	✓	1	15	50	✓
c8g.24xlarge	40 Gigabit	✓	✓	✓	1	15	50	✓
c8g.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c8g.metal-24xl	40 Gigabit	✓	✓	✓	1	15	50	✓
c8g.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
C8gd								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c8gd.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
c8gd.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
c8gd.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	15	✓
c8gd.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
c8gd.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
c8gd.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
c8gd.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
c8gd.16xlarge	30 Gigabit	✗	✓	✓	1	15	50	✓
c8gd.24xlarge	40 Gigabit	✓	✓	✓	1	15	50	✓
c8gd.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c8gd.meta l-24xl	40 Gigabit	✓	✓	✓	1	15	50	✓
c8gd.meta l-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
C8gn								
c8gn.medium ¹	3.125 / 25.0	✗	✓	✗	1	2	4	✓
c8gn.large ¹	6.25 / 30.0	✗	✓	✗	1	3	10	✓
c8gn.xlarge ¹	12.5 / 40.0	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c8gn.2xlarge ¹	25.0 / 50.0	✗	✓	✗	1	4	15	✓
c8gn.4xlarge	50 Gigabit	✗	✓	✗	1	8	30	✓
c8gn.8xlarge	100 Gigabit	✗	✓	✓	1	10	30	✓
c8gn.12xlarge	150 Gigabit	✗	✓	✓	1	12	30	✓
c8gn.16xlarge	200 Gigabit	✓	✓	✓	1	16	50	✓
c8gn.24xlarge	300 Gigabit	✓	✓	✓	1	24	50	✓
c8gn.48xlarge	600 Gigabit	✓	✓	✓	2	24	50	✓
c8gn.meta l-24xl	300 Gigabit	✓	✓	✓	1	24	50	✓
c8gn.meta l-48xl	600 Gigabit	✓	✓	✓	2	24	50	✓

Note

¹ These instances have a baseline bandwidth and can use a network I/O credit mechanism to burst beyond their baseline bandwidth on a best effort basis. Other instances types can sustain their maximum performance indefinitely. For more information, see [instance network bandwidth](#).

For c6in.32xlarge and c6in.meta1, you must attach at least 2 ENIs, to separate network cards, to achieve 200 Gbps throughput. Each ENI attached to a network card can achieve up to 170 Gbps.

For c8gn.48xlarge and c8gn.meta1-48xl, you must attach at least 2 ENIs, to separate network cards, to achieve 600 Gbps throughput. Each ENI attached to a network card can achieve up to 300 Gbps.

Amazon EBS specifications

The following table indicates which instance types are Amazon EBS optimized by default and which optionally support it. It also describes their EBS-optimized performance, including dedicated bandwidth to Amazon EBS, the typical maximum aggregate throughput that can be achieved on that dedicated connection with a streaming read workload and 128 KiB I/O size, and the maximum IOPS the instance type can support when using a 16 KiB I/O size. Instance types not listed do not support Amazon EBS optimization.

Important

An instance's EBS performance is bounded by the instance's performance limits, or the aggregated performance of its attached volumes, whichever is smaller. To achieve maximum EBS performance, an instance must have attached volumes that provide a combined performance equal to or greater than the maximum instance performance. For example, to achieve 80,000 IOPS for `r6i.16xlarge`, the instance must have at least 5 gp3 volumes provisioned with 16,000 IOPS each (5 volumes x 16,000 IOPS = 80,000 IOPS).

We recommend that you choose an EBS-optimized instance type that provides more dedicated Amazon EBS throughput than your application needs; otherwise, the connection between Amazon EBS and Amazon EC2 can become a performance bottleneck.

Note

C8g, C8gd instance types support configurable bandwidth weightings. With these instance types, you can optimize an instance's bandwidth for either networking performance or Amazon EBS performance. The following table shows the default networking bandwidth performance for these instance types. For the supported configurable weightings, see [Configurable bandwidth weighting preferences](#).

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
C5					
c5.large ¹	650.00 / 4750.00	81.25 / 593.75	4000.00 / 20000.00	✓	Up to 27 (Shared limit)
c5.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 20000.00	✓	Up to 27 (Shared limit)
c5.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	10000.00 / 20000.00	✓	Up to 27 (Shared limit)
c5.4xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
c5.9xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
c5.12xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
c5.18xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
c5.24xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
c5.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
C5a					
c5a.large ¹	200.00 / 3170.00	25.00 / 396.25	800.00 / 13300.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c5a.xlarge ¹	400.00 / 3170.00	50.00 / 396.25	1600.00 / 13300.00	✓	Up to 27 (Shared limit)
c5a.2xlarge ¹	800.00 / 3170.00	100.00 / 396.25	3200.00 / 13300.00	✓	Up to 27 (Shared limit)
c5a.4xlarge ¹	1580.00 / 3170.00	197.50 / 396.25	6600.00 / 13300.00	✓	Up to 27 (Shared limit)
c5a.8xlarge	3170.00	396.25	13300.00	✓	Up to 27 (Shared limit)
c5a.12xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
c5a.16xlarge	6300.00	787.50	26700.00	✓	Up to 27 (Shared limit)
c5a.24xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
C5ad					
c5ad.large ¹	200.00 / 3170.00	25.00 / 396.25	800.00 / 13300.00	✓	Up to 26 (Shared limit)
c5ad.xlarge ¹	400.00 / 3170.00	50.00 / 396.25	1600.00 / 13300.00	✓	Up to 26 (Shared limit)
c5ad.2xlarge ¹	800.00 / 3170.00	100.00 / 396.25	3200.00 / 13300.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c5ad.4xlarge ¹	1580.00 / 3170.00	197.50 / 396.25	6600.00 / 13300.00	✓	Up to 25 (Shared limit)
c5ad.8xlarge	3170.00	396.25	13300.00	✓	Up to 25 (Shared limit)
c5ad.12xlarge	4750.00	593.75	20000.00	✓	Up to 25 (Shared limit)
c5ad.16xlarge	6300.00	787.50	26700.00	✓	Up to 25 (Shared limit)
c5ad.24xlarge	9500.00	1187.50	40000.00	✓	Up to 25 (Shared limit)
C5d					
c5d.large ¹	650.00 / 4750.00	81.25 / 593.75	4000.00 / 20000.00	✓	Up to 26 (Shared limit)
c5d.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 20000.00	✓	Up to 26 (Shared limit)
c5d.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	10000.00 / 20000.00	✓	Up to 26 (Shared limit)
c5d.4xlarge	4750.00	593.75	20000.00	✓	Up to 26 (Shared limit)
c5d.9xlarge	9500.00	1187.50	40000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c5d.12xlarge	9500.00	1187.50	40000.00	✓	Up to 25 (Shared limit)
c5d.18xlarge	19000.00	2375.00	80000.00	✓	Up to 25 (Shared limit)
c5d.24xlarge	19000.00	2375.00	80000.00	✓	Up to 23 (Shared limit)
c5d.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
C5n					
c5n.large ¹	650.00 / 4750.00	81.25 / 593.75	4000.00 / 20000.00	✓	Up to 27 (Shared limit)
c5n.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 20000.00	✓	Up to 27 (Shared limit)
c5n.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	10000.00 / 20000.00	✓	Up to 27 (Shared limit)
c5n.4xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
c5n.9xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
c5n.18xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c5n.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

C6a

c6a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
c6a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)
c6a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)
c6a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)
c6a.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
c6a.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
c6a.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)
c6a.24xlarge	30000.00	3750.00	120000.00	✓	Up to 27 (Shared limit)
c6a.32xlarge	40000.00	5000.00	160000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c6a.48xlarge	40000.00	5000.00	240000.00	✓	Up to 27 (Shared limit)
c6a.metal	40000.00	5000.00	240000.00	✓	Up to 31 (Shared limit)
C6g					
c6g.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	Up to 27 (Shared limit)
c6g.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	Up to 27 (Shared limit)
c6g.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	Up to 27 (Shared limit)
c6g.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	Up to 27 (Shared limit)
c6g.4xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
c6g.8xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
c6g.12xlarge	14250.00	1781.25	50000.00	✓	Up to 27 (Shared limit)
c6g.16xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c6g.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

C6gd

c6gd.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	Up to 26 (Shared limit)
c6gd.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	Up to 26 (Shared limit)
c6gd.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	Up to 26 (Shared limit)
c6gd.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	Up to 26 (Shared limit)
c6gd.4xlarge	4750.00	593.75	20000.00	✓	Up to 26 (Shared limit)
c6gd.8xlarge	9500.00	1187.50	40000.00	✓	Up to 26 (Shared limit)
c6gd.12xlarge	14250.00	1781.25	50000.00	✓	Up to 25 (Shared limit)
c6gd.16xlarge	19000.00	2375.00	80000.00	✓	Up to 25 (Shared limit)
c6gd.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

C6gn

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c6gn.medium ¹	760.00 / 9500.00	95.00 / 1187.50	2500.00 / 40000.00	✓	Up to 27 (Shared limit)
c6gn.large ¹	1235.00 / 9500.00	154.38 / 1187.50	5000.00 / 40000.00	✓	Up to 27 (Shared limit)
c6gn.xlarge ¹	2375.00 / 9500.00	296.88 / 1187.50	10000.00 / 40000.00	✓	Up to 27 (Shared limit)
c6gn.2xlarge ¹	4750.00 / 9500.00	593.75 / 1187.50	20000.00 / 40000.00	✓	Up to 27 (Shared limit)
c6gn.4xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
c6gn.8xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
c6gn.12xlarge	28500.00	3562.50	120000.00	✓	Up to 27 (Shared limit)
c6gn.16xlarge	38000.00	4750.00	160000.00	✓	Up to 27 (Shared limit)
C6i					
c6i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
c6i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c6i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)
c6i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)
c6i.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
c6i.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
c6i.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)
c6i.24xlarge	30000.00	3750.00	120000.00	✓	Up to 27 (Shared limit)
c6i.32xlarge	40000.00	5000.00	160000.00	✓	Up to 27 (Shared limit)
c6i.metal	40000.00	5000.00	160000.00	✓	Up to 31 (Shared limit)

C6id

c6id.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 26 (Shared limit)
c6id.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c6id.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 26 (Shared limit)
c6id.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
c6id.8xlarge	10000.00	1250.00	40000.00	✓	Up to 26 (Shared limit)
c6id.12xlarge	15000.00	1875.00	60000.00	✓	Up to 25 (Shared limit)
c6id.16xlarge	20000.00	2500.00	80000.00	✓	Up to 25 (Shared limit)
c6id.24xlarge	30000.00	3750.00	120000.00	✓	Up to 23 (Shared limit)
c6id.32xlarge	40000.00	5000.00	160000.00	✓	Up to 23 (Shared limit)
c6id.metal	40000.00	5000.00	160000.00	✓	Up to 31 (Shared limit)
C6in					
c6in.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	Up to 27 (Shared limit)
c6in.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c6in.2xlarge ¹	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	Up to 27 (Shared limit)
c6in.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	Up to 27 (Shared limit)
c6in.8xlarge	25000.00	3125.00	100000.00	✓	Up to 27 (Shared limit)
c6in.12xlarge	37500.00	4687.50	150000.00	✓	Up to 27 (Shared limit)
c6in.16xlarge	50000.00	6250.00	200000.00	✓	Up to 27 (Shared limit)
c6in.24xlarge	75000.00	9375.00	300000.00	✓	Up to 27 (Shared limit)
c6in.32xlarge	100000.00	12500.00	400000.00	✓	Up to 27 (Shared limit)
c6in.metal	100000.00	12500.00	400000.00	✓	Up to 31 (Shared limit)

C7a

c7a.medium ¹	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
c7a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c7a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
c7a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
c7a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
c7a.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
c7a.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
c7a.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
c7a.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
c7a.32xlarge	40000.00	5000.00	160000.00	✓	88 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c7a.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
c7a.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
C7g					
c7g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	Up to 27 (Shared limit)
c7g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
c7g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)
c7g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)
c7g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)
c7g.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
c7g.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
c7g.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c7g.metal	20000.00	2500.00	80000.00	✓	Up to 31 (Shared limit)
C7gd					
c7gd.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	Up to 26 (Shared limit)
c7gd.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	Up to 26 (Shared limit)
c7gd.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 26 (Shared limit)
c7gd.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 26 (Shared limit)
c7gd.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
c7gd.8xlarge	10000.00	1250.00	40000.00	✓	Up to 26 (Shared limit)
c7gd.12xlarge	15000.00	1875.00	60000.00	✓	Up to 25 (Shared limit)
c7gd.16xlarge	20000.00	2500.00	80000.00	✓	Up to 25 (Shared limit)
c7gd.metal	20000.00	2500.00	80000.00	✓	Up to 31 (Shared limit)
C7gn					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c7gn.medium ¹	521.00 / 10000.00	65.12 / 1250.00	2083.00 / 40000.00	✓	Up to 27 (Shared limit)
c7gn.large ¹	1042.00 / 10000.00	130.25 / 1250.00	4167.00 / 40000.00	✓	Up to 27 (Shared limit)
c7gn.xlarge ¹	2083.00 / 10000.00	260.38 / 1250.00	8333.00 / 40000.00	✓	Up to 27 (Shared limit)
c7gn.2xlarge ¹	4167.00 / 10000.00	520.88 / 1250.00	16667.00 / 40000.00	✓	Up to 27 (Shared limit)
c7gn.4xlarge ¹	8333.00 / 10000.00	1041.62 / 1250.00	33333.00 / 40000.00	✓	Up to 27 (Shared limit)
c7gn.8xlarge ¹	16667.00 / 20000.00	2083.38 / 2500.00	66667.00 / 80000.00	✓	Up to 27 (Shared limit)
c7gn.12xlarge ¹	25000.00 / 30000.00	3125.00 / 3750.00	100000.00 / 120000.00	✓	Up to 27 (Shared limit)
c7gn.16xlarge ¹	33333.00 / 40000.00	4166.62 / 5000.00	133333.00 / 160000.00	✓	Up to 27 (Shared limit)
c7gn.metal ¹	33333.00 / 40000.00	4166.62 / 5000.00	133333.00 / 160000.00	✓	Up to 31 (Shared limit)
C7i					
c7i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c7i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
c7i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
c7i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
c7i.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
c7i.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
c7i.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
c7i.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
c7i.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c7i.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
c7i.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
C7i-flex					
c7i-flex.large ¹	312.00 / 10000.00	39.06 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
c7i-flex.xlarge ¹	625.00 / 10000.00	78.12 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
c7i-flex.2xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
c7i-flex.4xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
c7i-flex.8xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
c7i-flex.12xlarge ¹	7500.00 / 15000.00	937.50 / 1875.00	30000.00 / 60000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c7i-flex.16xlarge ¹	10000.00 / 20000.00	1250.00 / 2500.00	40000.00 / 80000.00	✓	48 (Dedicated limit)
C8g					
c8g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
c8g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
c8g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
c8g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
c8g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
c8g.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
c8g.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c8g.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
c8g.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
c8g.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
c8g.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
c8g.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
C8gd					
c8gd.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
c8gd.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
c8gd.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c8gd.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
c8gd.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
c8gd.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
c8gd.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
c8gd.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
c8gd.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
c8gd.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
c8gd.meta-l-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c8gd.meta l-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
C8gn					
c8gn.medium ¹	760.00 / 10000.00	95.00 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
c8gn.large ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	32 (Dedicated limit)
c8gn.xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	32 (Dedicated limit)
c8gn.2xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
c8gn.4xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
c8gn.8xlarge	20000.00	2500.00	80000.00	✓	32 (Dedicated limit)
c8gn.12xlarge	30000.00	3750.00	120000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c8gn.16xlarge	40000.00	5000.00	160000.00	✓	48 (Dedicated limit)
c8gn.24xlarge	60000.00	7500.00	240000.00	✓	64 (Dedicated limit)
c8gn.48xlarge	60000.00	7500.00	240000.00	✓	64 (Dedicated limit)
c8gn.meta-l-24xlarge	60000.00	7500.00	240000.00	✓	39 (Dedicated limit)
c8gn.meta-l-48xlarge	60000.00	7500.00	240000.00	✓	39 (Dedicated limit)

Note

¹ These instances can support maximum performance for 30 minutes at least once every 24 hours, after which they revert to their baseline performance. Other instances can sustain the maximum performance indefinitely. If your workload requires sustained maximum performance for longer than 30 minutes, use one of these instances.

Instance store specifications

The following table shows the instance store volume configuration for supported instance types, along with the aggregated IOPS performance with 4,096 byte block size at queue depth saturation.

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
C5ad					
c5ad.large	1 x 75 GB	NVMe SSD	16,283 / 7,105		✓
c5ad.xlarge	1 x 150 GB	NVMe SSD	32,566 / 14,211		✓
c5ad.2xlarge	1 x 300 GB	NVMe SSD	65,132 / 28,421		✓
c5ad.4xlarge	2 x 300 GB	NVMe SSD	130,262 / 56,842		✓
c5ad.8xlarge	2 x 600 GB	NVMe SSD	260,526 / 113,684		✓
c5ad.12xlarge	2 x 900 GB	NVMe SSD	412,500 / 180,000		✓
c5ad.16xlarge	2 x 1200 GB	NVMe SSD	521,052 / 227,368		✓
c5ad.24xlarge	2 x 1900 GB	NVMe SSD	825,000 / 360,000		✓
C5d					
c5d.large	1 x 50 GB	NVMe SSD	20,000 / 9,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
c5d.xlarge	1 x 100 GB	NVMe SSD	40,000 / 18,000		✓
c5d.2xlarge	1 x 200 GB	NVMe SSD	80,000 / 37,000		✓
c5d.4xlarge	1 x 400 GB	NVMe SSD	175,000 / 75,000		✓
c5d.9xlarge	1 x 900 GB	NVMe SSD	350,000 / 170,000		✓
c5d.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
c5d.18xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
c5d.24xlarge	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
c5d.metal	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
C6gd					
c6gd.medium	1 x 59 GB	NVMe SSD	13,438 / 5,625		✓
c6gd.large	1 x 118 GB	NVMe SSD	26,875 / 11,250		✓
c6gd.xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
c6gd.2xlarge	1 x 474 GB	NVMe SSD	107,500 / 45,000		✓
c6gd.4xlarge	1 x 950 GB	NVMe SSD	215,000 / 90,000		✓
c6gd.8xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓
c6gd.12xlarge	2 x 1425 GB	NVMe SSD	645,000 / 270,000		✓
c6gd.16xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
c6gd.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
C6id					
c6id.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
c6id.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
c6id.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
c6id.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
c6id.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
c6id.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
c6id.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
c6id.24xlarge	4 x 1425 GB	NVMe SSD	1,609,996 / 805,000		✓
c6id.32xlarge	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
c6id.metal	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓

C7gd

c7gd.medium	1 x 59 GB	NVMe SSD	16,771 / 8,385		✓
c7gd.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
c7gd.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
c7gd.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
c7gd.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
c7gd.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
c7gd.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
c7gd.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
c7gd.metal	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
C8gd					
c8gd.medium	1 x 59 GB	NVMe SSD	16,771 / 8,385		✓
c8gd.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
c8gd.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
c8gd.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
c8gd.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
c8gd.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
c8gd.12xlarge	3 x 950 GB	NVMe SSD	804,999 / 402,501		✓
c8gd.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
c8gd.24xlarge	3 x 1900 GB	NVMe SSD	1,609,998 / 805,002		✓
c8gd.48xlarge	6 x 1900 GB	NVMe SSD	3,219,996 / 1,610,004		✓
c8gd.metal-24xl	3 x 1900 GB	NVMe SSD	1,609,998 / 805,002		✓
c8gd.metal-48xl	6 x 1900 GB	NVMe SSD	3,219,996 / 1,610,004		✓

¹ Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see [Optimize disk performance for instance store volumes](#).

² For more information, see [Instance store volume TRIM support](#).

Security specifications

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
C5						
c5.large	✓	Instance store not supported	✗	✗	✓	✗
c5.xlarge	✓	Instance store not supported	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c5.2xlarge	✓	Instance store not supported	✗	✗	✓	✓
c5.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
c5.9xlarge	✓	Instance store not supported	✗	✗	✓	✓
c5.12xlarge	✓	Instance store not supported	✗	✗	✓	✓
c5.18xlarge	✓	Instance store not supported	✗	✗	✓	✓
c5.24xlarge	✓	Instance store not supported	✗	✗	✓	✓
c5.metal	✓	Instance store not supported	✗	✗	✗	✗
C5a						
c5a.large	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c5a.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5a.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5a.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5a.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5a.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5a.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5a.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
C5ad						
c5ad.large	✓	✓	✓	✗	✓	✗
c5ad.xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c5ad.2xlarge	✓	✓	✓	✗	✓	✓
c5ad.4xlarge	✓	✓	✓	✗	✓	✓
c5ad.8xlarge	✓	✓	✓	✗	✓	✓
c5ad.12xlarge	✓	✓	✓	✗	✓	✓
c5ad.16xlarge	✓	✓	✓	✗	✓	✓
c5ad.24xlarge	✓	✓	✓	✗	✓	✓
C5d						
c5d.large	✓	✓	✗	✗	✓	✗
c5d.xlarge	✓	✓	✗	✗	✓	✓
c5d.2xlarge	✓	✓	✗	✗	✓	✓
c5d.4xlarge	✓	✓	✗	✗	✓	✓
c5d.9xlarge	✓	✓	✗	✗	✓	✓
c5d.12xlarge	✓	✓	✗	✗	✓	✓
c5d.18xlarge	✓	✓	✗	✗	✓	✓
c5d.24xlarge	✓	✓	✗	✗	✓	✓
c5d.metal	✓	✓	✗	✗	✗	✗
C5n						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c5n.large	✓	Instance store not supported	✓	✗	✓	✗
c5n.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5n.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5n.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5n.9xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5n.18xlarge	✓	Instance store not supported	✓	✗	✓	✓
c5n.metal	✓	Instance store not supported	✓	✗	✗	✗
C6a						
c6a.large	✓	Instance store not supported	✓	✓	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6a.xlarge	✓	Instance store not supported	✓	✓	✓	✓
c6a.2xlarge	✓	Instance store not supported	✓	✓	✓	✓
c6a.4xlarge	✓	Instance store not supported	✓	✓	✓	✓
c6a.8xlarge	✓	Instance store not supported	✓	✓	✓	✓
c6a.12xlarge	✓	Instance store not supported	✓	✓	✓	✓
c6a.16xlarge	✓	Instance store not supported	✓	✓	✓	✓
c6a.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6a.32xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6a.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6a.metal	✓	Instance store not supported	✓	✗	✗	✗
C6g						
c6g.medium	✓	Instance store not supported	✗	✗	✓	✗
c6g.large	✓	Instance store not supported	✗	✗	✓	✓
c6g.xlarge	✓	Instance store not supported	✗	✗	✓	✓
c6g.2xlarge	✓	Instance store not supported	✗	✗	✓	✓
c6g.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
c6g.8xlarge	✓	Instance store not supported	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6g.12xlarge	✓	Instance store not supported	✗	✗	✓	✓
c6g.16xlarge	✓	Instance store not supported	✗	✗	✓	✓
c6g.metal	✓	Instance store not supported	✗	✗	✗	✗

C6gd

c6gd.medium	✓	✓	✗	✗	✓	✗
c6gd.large	✓	✓	✗	✗	✓	✓
c6gd.xlarge	✓	✓	✗	✗	✓	✓
c6gd.2xlarge	✓	✓	✗	✗	✓	✓
c6gd.4xlarge	✓	✓	✗	✗	✓	✓
c6gd.8xlarge	✓	✓	✗	✗	✓	✓
c6gd.12xlarge	✓	✓	✗	✗	✓	✓
c6gd.16xlarge	✓	✓	✗	✗	✓	✓
c6gd.metal	✓	✓	✗	✗	✗	✗

C6gn

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6gn.medium	✓	Instance store not supported	✓	✗	✓	✗
c6gn.large	✓	Instance store not supported	✓	✗	✓	✓
c6gn.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6gn.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6gn.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6gn.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6gn.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6gn.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
C6i						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6i.large	✓	Instance store not supported	✓	✗	✓	✗
c6i.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6i.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6i.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6i.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6i.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6i.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6i.24xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6i.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6i.metal	✓	Instance store not supported	✓	✗	✗	✗
C6id						
c6id.large	✓	✓	✓	✗	✓	✗
c6id.xlarge	✓	✓	✓	✗	✓	✓
c6id.2xlarge	✓	✓	✓	✗	✓	✓
c6id.4xlarge	✓	✓	✓	✗	✓	✓
c6id.8xlarge	✓	✓	✓	✗	✓	✓
c6id.12xlarge	✓	✓	✓	✗	✓	✓
c6id.16xlarge	✓	✓	✓	✗	✓	✓
c6id.24xlarge	✓	✓	✓	✗	✓	✓
c6id.32xlarge	✓	✓	✓	✗	✓	✓
c6id.metal	✓	✓	✓	✗	✗	✗
C6in						
c6in.large	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6in.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6in.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6in.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6in.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6in.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6in.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6in.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
c6in.32xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6in.metal	✓	Instance store not supported	✓	✗	✗	✗
C7a						
c7a.medium	✓	Instance store not supported	✓	✗	✓	✗
c7a.large	✓	Instance store not supported	✓	✗	✓	✗
c7a.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7a.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7a.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7a.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7a.12xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7a.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7a.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7a.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7a.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7a.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
C7g						
c7g.medium	✓	Instance store not supported	✓	✗	✓	✗
c7g.large	✓	Instance store not supported	✓	✗	✓	✓
c7g.xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7g.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7g.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7g.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7g.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7g.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7g.metal	✓	Instance store not supported	✓	✗	✗	✗
C7gd						
c7gd.medium	✓	✓	✓	✗	✓	✗
c7gd.large	✓	✓	✓	✗	✓	✓
c7gd.xlarge	✓	✓	✓	✗	✓	✓
c7gd.2xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7gd.4xlarge	✓	✓	✓	✗	✓	✓
c7gd.8xlarge	✓	✓	✓	✗	✓	✓
c7gd.12xlarge	✓	✓	✓	✗	✓	✓
c7gd.16xlarge	✓	✓	✓	✗	✓	✓
c7gd.metal	✓	✓	✓	✗	✗	✗
C7gn						
c7gn.medium	✓	Instance store not supported	✓	✗	✓	✗
c7gn.large	✓	Instance store not supported	✓	✗	✓	✗
c7gn.xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7gn.2xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7gn.4xlarge	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7gn.8xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7gn.12xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7gn.16xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7gn.metal	✓	Instance store not supported	✓	✗	✗	✗
C7i						
c7i.large	✓	Instance store not supported	✓	✗	✓	✗
c7i.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7i.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7i.4xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7i.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7i.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7i.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7i.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7i.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
c7i.metal-24xl	✓	Instance store not supported	✓	✗	✗	✗
c7i.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
C7i-flex						
c7i-flex.large	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7i-flex.xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7i-flex.2xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7i-flex.4xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7i-flex.8xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7i-flex.12xlarge	✓	Instance store not supported	✓	✗	✓	✗
c7i-flex.16xlarge	✓	Instance store not supported	✓	✗	✓	✗
C8g						
c8g.medium	✓	Instance store not supported	✓	✗	✓	✗
c8g.large	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c8g.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8g.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8g.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8g.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8g.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8g.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8g.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8g.48xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c8g.metal-24xl	✓	Instance store not supported	✓	✗	✗	✗
c8g.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
C8gd						
c8gd.medium	✓	✓	✓	✗	✓	✗
c8gd.large	✓	✓	✓	✗	✓	✓
c8gd.xlarge	✓	✓	✓	✗	✓	✓
c8gd.2xlarge	✓	✓	✓	✗	✓	✓
c8gd.4xlarge	✓	✓	✓	✗	✓	✓
c8gd.8xlarge	✓	✓	✓	✗	✓	✓
c8gd.12xlarge	✓	✓	✓	✗	✓	✓
c8gd.16xlarge	✓	✓	✓	✗	✓	✓
c8gd.24xlarge	✓	✓	✓	✗	✓	✓
c8gd.48xlarge	✓	✓	✓	✗	✓	✓
c8gd.metal-24xl	✓	✓	✓	✗	✗	✗
c8gd.metal-48xl	✓	✓	✓	✗	✗	✗
C8gn						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c8gn.medium	✓	Instance store not supported	✓	✗	✓	✗
c8gn.large	✓	Instance store not supported	✓	✗	✓	✓
c8gn.xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8gn.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8gn.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8gn.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8gn.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8gn.16xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c8gn.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8gn.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
c8gn.metal-24xl	✓	Instance store not supported	✓	✗	✗	✗
c8gn.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗

Specifications for Amazon EC2 memory optimized instances

End of sale notice

The **U-9tb1**, **U-12tb1**, **U-18tb1**, and **U-24tb1** instance types are no longer available for new instance launches. If your workload requires a high-memory instance, we recommend that you use a U7i instance type instead.

Memory optimized instances are designed to deliver fast performance for workloads that process large data sets in memory.

For information on previous generation instance types of this category, such as R4 instances, see [Specifications for Amazon EC2 previous generation instances](#).

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- [Instance family summary](#)
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Pricing

For pricing information, see [Amazon EC2 On-Demand Pricing](#).

Instance families and instance types

Instance family	Available instance types
R5	r5.large r5.xlarge r5.2xlarge r5.4xlarge r5.8xlarge r5.12xlarge r5.16xlarge r5.24xlarge r5.metal
R5a	r5a.large r5a.xlarge r5a.2xlarge r5a.4xlarge r5a.8xlarge r5a.12xlarge r5a.16xlarge r5a.24xlarge
R5ad	r5ad.large r5ad.xlarge r5ad.2xlarge r5ad.4xlarge r5ad.8xlarge r5ad.12xlarge r5ad.16xlarge r5ad.24xlarge
R5b	r5b.large r5b.xlarge r5b.2xlarge r5b.4xlarge r5b.8xlarge r5b.12xlarge r5b.16xlarge r5b.24xlarge r5b.metal
R5d	r5d.large r5d.xlarge r5d.2xlarge r5d.4xlarge r5d.8xlarge r5d.12xlarge r5d.16xlarge r5d.24xlarge r5d.metal
R5dn	r5dn.large r5dn.xlarge r5dn.2xlarge r5dn.4xlarge r5dn.8xlarge r5dn.12xlarge r5dn.16xlarge r5dn.24xlarge r5dn.metal

Instance family	Available instance types
R5n	r5n.large r5n.xlarge r5n.2xlarge r5n.4xlarge r5n.8xlarge r5n.12xlarge r5n.16xlarge r5n.24xlarge r5n.metal
R6a	r6a.large r6a.xlarge r6a.2xlarge r6a.4xlarge r6a.8xlarge r6a.12xlarge r6a.16xlarge r6a.24xlarge r6a.32xlarge r6a.48xlarge r6a.metal
R6g	r6g.medium r6g.large r6g.xlarge r6g.2xlarge r6g.4xlarge r6g.8xlarge r6g.12xlarge r6g.16xlarge r6g.metal
R6gd	r6gd.medium r6gd.large r6gd.xlarge r6gd.2xlarge r6gd.4xlarge r6gd.8xlarge r6gd.12xlarge r6gd.16xlarge r6gd.metal
R6i	r6i.large r6i.xlarge r6i.2xlarge r6i.4xlarge r6i.8xlarge r6i.12xlarge r6i.16xlarge r6i.24xlarge r6i.32xlarge r6i.metal
R6idn	r6idn.large r6idn.xlarge r6idn.2xlarge r6idn.4xlarge r6idn.8xlarge r6idn.12xlarge r6idn.16xlarge r6idn.24xlarge r6idn.32xlarge r6idn.metal
R6in	r6in.large r6in.xlarge r6in.2xlarge r6in.4xlarge r6in.8xlarge r6in.12xlarge r6in.16xlarge r6in.24xlarge r6in.32xlarge r6in.metal
R6id	r6id.large r6id.xlarge r6id.2xlarge r6id.4xlarge r6id.8xlarge r6id.12xlarge r6id.16xlarge r6id.24xlarge r6id.32xlarge r6id.metal
R7a	r7a.medium r7a.large r7a.xlarge r7a.2xlarge r7a.4xlarge r7a.8xlarge r7a.12xlarge r7a.16xlarge r7a.24xlarge r7a.32xlarge r7a.48xlarge r7a.metal-48x1
R7g	r7g.medium r7g.large r7g.xlarge r7g.2xlarge r7g.4xlarge r7g.8xlarge r7g.12xlarge r7g.16xlarge r7g.metal

Instance family	Available instance types
R7gd	r7gd.medium r7gd.large r7gd.xlarge r7gd.2xlarge r7gd.4xlarge r7gd.8xlarge r7gd.12xlarge r7gd.16xlarge r7gd.metal
R7i	r7i.large r7i.xlarge r7i.2xlarge r7i.4xlarge r7i.8xlarge r7i.12xlarge r7i.16xlarge r7i.24xlarge r7i.48xlarge r7i.metal-24xl r7i.metal-48xl
R7iz	r7iz.large r7iz.xlarge r7iz.2xlarge r7iz.4xlarge r7iz.8xlarge r7iz.12xlarge r7iz.16xlarge r7iz.32xlarge r7iz.metal-16xl r7iz.metal-32xl
R8g	r8g.medium r8g.large r8g.xlarge r8g.2xlarge r8g.4xlarge r8g.8xlarge r8g.12xlarge r8g.16xlarge r8g.24xlarge r8g.48xlarge r8g.metal-24xl r8g.metal-48xl
R8gd	r8gd.medium r8gd.large r8gd.xlarge r8gd.2xlarge r8gd.4xlarge r8gd.8xlarge r8gd.12xlarge r8gd.16xlarge r8gd.24xlarge r8gd.48xlarge r8gd.metal-24xl r8gd.metal-48xl
R8i	r8i.large r8i.xlarge r8i.2xlarge r8i.4xlarge r8i.8xlarge r8i.12xlarge r8i.16xlarge r8i.24xlarge r8i.32xlarge r8i.48xlarge r8i.96xlarge r8i.metal-48xl r8i.metal-96xl
R8i-flex	r8i-flex.large r8i-flex.xlarge r8i-flex.2xlarge r8i-flex.4xlarge r8i-flex.8xlarge r8i-flex.12xlarge r8i-flex.16xlarge
U-3tb1	u-3tb1.56xlarge
U-6tb1	u-6tb1.56xlarge u-6tb1.112xlarge u-6tb1.metal
U-9tb1	u-9tb1.112xlarge u-9tb1.metal
U-12tb1	u-12tb1.112xlarge u-12tb1.metal

Instance family	Available instance types
U-18tb1	u-18tb1.112xlarge u-18tb1.metal
U-24tb1	u-24tb1.112xlarge u-24tb1.metal
U7i-6tb	u7i-6tb.112xlarge
U7i-8tb	u7i-8tb.112xlarge
U7i-12tb	u7i-12tb.224xlarge
U7in-16tb	u7in-16tb.224xlarge
U7in-24tb	u7in-24tb.224xlarge
U7in-32tb	u7in-32tb.224xlarge
U7inh-32tb	u7inh-32tb.480xlarge
X1	x1.16xlarge x1.32xlarge
X1e	x1e.xlarge x1e.2xlarge x1e.4xlarge x1e.8xlarge x1e.16xlarge x1e.32xlarge
X2gd	x2gd.medium x2gd.large x2gd.xlarge x2gd.2xlarge x2gd.4xlarge x2gd.8xlarge x2gd.12xlarge x2gd.16xlarge x2gd.metal
X2idn	x2idn.16xlarge x2idn.24xlarge x2idn.32xlarge x2idn.metal
X2iedn	x2iedn.xlarge x2iedn.2xlarge x2iedn.4xlarge x2iedn.8xlarge x2iedn.16xlarge x2iedn.24xlarge x2iedn.32xlarge x2iedn.metal
X2iezn	x2iezn.2xlarge x2iezn.4xlarge x2iezn.6xlarge x2iezn.8xlarge x2iezn.12xlarge x2iezn.metal

Instance family	Available instance types
X8g	x8g.medium x8g.large x8g.xlarge x8g.2xlarge x8g.4xlarge x8g.8xlarge x8g.12xlarge x8g.16xlarge x8g.24xlarge x8g.48xlarge x8g.metal-24x1 x8g.metal-48x1
z1d	z1d.large z1d.xlarge z1d.2xlarge z1d.3xlarge z1d.6xlarge z1d.12xlarge z1d.metal

Instance family summary

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
R5	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
R5a	Nitro v2	AMD (x86_64)	✗	✗	✓	✓	Windows Linux
R5ad	Nitro v2	AMD (x86_64)	✗	✗	✓	✓	Windows Linux
R5b	Nitro v2	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R5d	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
R5dn	Nitro v3	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R5n	Nitro v3	Intel (x86_64)	✓	✓	✓	✗	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
R6a	Nitro v4	AMD (x86_64)	✓	✓	✓	✓	Windows Linux
R6g	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R6gd	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R6i	Nitro v4	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R6idn	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
R6in	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
R6id	Nitro v4	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R7a	Nitro v4	AMD (x86_64)	✓	✓	✓	✓	Windows Linux
R7g	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R7gd	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
R7i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
R7iz	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
R8g	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R8gd	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R8i	Nitro v6	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
R8i-flex	Nitro v6	Intel (x86_64)	✗	✗	✓	✓	Windows Linux
U-3tb1	Nitro v3	Intel (x86_64)	✗	✗	✗	✗	Windows Linux
U-6tb1	Nitro v3	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
U-9tb1	Nitro v3	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
U-12tb1	Nitro v3	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
U-18tb1	Nitro v3	Intel (x86_64)	✓	✓	✗	✗	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
U-24tb1	Nitro v3	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
U7i-6tb	Nitro v4	Intel (x86_64)	✗	✓	✗	✗	Windows Linux
U7i-8tb	Nitro v4	Intel (x86_64)	✗	✓	✗	✗	Windows Linux
U7i-12tb	Nitro v4	Intel (x86_64)	✗	✓	✗	✗	Windows Linux
U7in-16tb	Nitro v4	Intel (x86_64)	✗	✓	✗	✗	Windows Linux
U7in-24tb	Nitro v4	Intel (x86_64)	✗	✓	✗	✗	Windows Linux
U7in-32tb	Nitro v4	Intel (x86_64)	✗	✓	✗	✗	Windows Linux
U7inh-32tb	Nitro v4	Intel (x86_64)	✗	✓	✗	✗	Linux
X1	Xen	Intel (x86_64)	✗	✓	✓	✗	Windows Linux
X1e	Xen	Intel (x86_64)	✗	✓	✓	✗	Windows Linux
X2gd	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
X2idn	Nitro v4	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
X2iedn	Nitro v4	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
X2iezn	Nitro v3	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
X8g	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
z1d	Nitro v2	Intel (x86_64)	✓	✓	✓	✗	Windows Linux

Performance specifications

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
R5							
r5.large	16.00	Intel Xeon Platinum 8175	2	1	2	✗	✗
r5.xlarge	32.00	Intel Xeon Platinum 8175	4	2	2	✗	✗
r5.2xlarge	64.00	Intel Xeon Platinum 8175	8	4	2	✗	✗

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r5.4xlarge	128.00	Intel Xeon Platinum 8175	16	8	2	x	x
r5.8xlarge	256.00	Intel Xeon Platinum 8175	32	16	2	x	x
r5.12xlarge	384.00	Intel Xeon Platinum 8175	48	24	2	x	x
r5.16xlarge	512.00	Intel Xeon Platinum 8175	64	32	2	x	x
r5.24xlarge	768.00	Intel Xeon Platinum 8175	96	48	2	x	x
r5.metal	768.00	Intel Xeon Platinum 8175	96	48	2	x	x
R5a							
r5a.large	16.00	AMD EPYC 7571	2	1	2	x	x
r5a.xlarge	32.00	AMD EPYC 7571	4	2	2	x	x
r5a.2xlarge	64.00	AMD EPYC 7571	8	4	2	x	x
r5a.4xlarge	128.00	AMD EPYC 7571	16	8	2	x	x
r5a.8xlarge	256.00	AMD EPYC 7571	32	16	2	x	x
r5a.12xlarge	384.00	AMD EPYC 7571	48	24	2	x	x
r5a.16xlarge	512.00	AMD EPYC 7571	64	32	2	x	x
r5a.24xlarge	768.00	AMD EPYC 7571	96	48	2	x	x
R5ad							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r5ad.large	16.00	AMD EPYC 7571	2	1	2	x	x
r5ad.xlarge	32.00	AMD EPYC 7571	4	2	2	x	x
r5ad.2xlarge	64.00	AMD EPYC 7571	8	4	2	x	x
r5ad.4xlarge	128.00	AMD EPYC 7571	16	8	2	x	x
r5ad.8xlarge	256.00	AMD EPYC 7571	32	16	2	x	x
r5ad.12xlarge	384.00	AMD EPYC 7571	48	24	2	x	x
r5ad.16xlarge	512.00	AMD EPYC 7571	64	32	2	x	x
r5ad.24xlarge	768.00	AMD EPYC 7571	96	48	2	x	x
R5b							
r5b.large	16.00	Intel Xeon Platinum 8259	2	1	2	x	x
r5b.xlarge	32.00	Intel Xeon Platinum 8259	4	2	2	x	x
r5b.2xlarge	64.00	Intel Xeon Platinum 8259	8	4	2	x	x
r5b.4xlarge	128.00	Intel Xeon Platinum 8259	16	8	2	x	x
r5b.8xlarge	256.00	Intel Xeon Platinum 8259	32	16	2	x	x
r5b.12xlarge	384.00	Intel Xeon Platinum 8259	48	24	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r5b.16xlarge	512.00	Intel Xeon Platinum 8259	64	32	2	x	x
r5b.24xlarge	768.00	Intel Xeon Platinum 8259	96	48	2	x	x
r5b.metal	768.00	Intel Xeon Platinum 8259	96	48	2	x	x
R5d							
r5d.large	16.00	Intel Xeon Platinum 8175	2	1	2	x	x
r5d.xlarge	32.00	Intel Xeon Platinum 8175	4	2	2	x	x
r5d.2xlarge	64.00	Intel Xeon Platinum 8175	8	4	2	x	x
r5d.4xlarge	128.00	Intel Xeon Platinum 8175	16	8	2	x	x
r5d.8xlarge	256.00	Intel Xeon Platinum 8175	32	16	2	x	x
r5d.12xlarge	384.00	Intel Xeon Platinum 8175	48	24	2	x	x
r5d.16xlarge	512.00	Intel Xeon Platinum 8175	64	32	2	x	x
r5d.24xlarge	768.00	Intel Xeon Platinum 8175	96	48	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r5d.metal	768.00	Intel Xeon Platinum 8175	96	48	2	x	x

R5dn

r5dn.large	16.00	Intel Xeon Platinum 8259	2	1	2	x	x
r5dn.xlarge	32.00	Intel Xeon Platinum 8259	4	2	2	x	x
r5dn.2xlarge	64.00	Intel Xeon Platinum 8259	8	4	2	x	x
r5dn.4xlarge	128.00	Intel Xeon Platinum 8259	16	8	2	x	x
r5dn.8xlarge	256.00	Intel Xeon Platinum 8259	32	16	2	x	x
r5dn.12xlarge	384.00	Intel Xeon Platinum 8259	48	24	2	x	x
r5dn.16xlarge	512.00	Intel Xeon Platinum 8259	64	32	2	x	x
r5dn.24xlarge	768.00	Intel Xeon Platinum 8259	96	48	2	x	x
r5dn.metal	768.00	Intel Xeon Platinum 8259	96	48	2	x	x

R5n

r5n.large	16.00	Intel Xeon Platinum 8259	2	1	2	x	x
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Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r5n.xlarge	32.00	Intel Xeon Platinum 8259	4	2	2	x	x
r5n.2xlarge	64.00	Intel Xeon Platinum 8259	8	4	2	x	x
r5n.4xlarge	128.00	Intel Xeon Platinum 8259	16	8	2	x	x
r5n.8xlarge	256.00	Intel Xeon Platinum 8259	32	16	2	x	x
r5n.12xlarge	384.00	Intel Xeon Platinum 8259	48	24	2	x	x
r5n.16xlarge	512.00	Intel Xeon Platinum 8259	64	32	2	x	x
r5n.24xlarge	768.00	Intel Xeon Platinum 8259	96	48	2	x	x
r5n.metal	768.00	Intel Xeon Platinum 8259	96	48	2	x	x
R6a							
r6a.large	16.00	AMD EPYC 7R13	2	1	2	x	x
r6a.xlarge	32.00	AMD EPYC 7R13	4	2	2	x	x
r6a.2xlarge	64.00	AMD EPYC 7R13	8	4	2	x	x
r6a.4xlarge	128.00	AMD EPYC 7R13	16	8	2	x	x
r6a.8xlarge	256.00	AMD EPYC 7R13	32	16	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r6a.12xlarge	384.00	AMD EPYC 7R13	48	24	2	x	x
r6a.16xlarge	512.00	AMD EPYC 7R13	64	32	2	x	x
r6a.24xlarge	768.00	AMD EPYC 7R13	96	48	2	x	x
r6a.32xlarge	1024.00	AMD EPYC 7R13	128	64	2	x	x
r6a.48xlarge	1536.00	AMD EPYC 7R13	192	96	2	x	x
r6a.metal	1536.00	AMD EPYC 7R13	192	96	2	x	x
R6g							
r6g.medium	8.00	AWS Graviton2 Processor	1	1	1	x	x
r6g.large	16.00	AWS Graviton2 Processor	2	2	1	x	x
r6g.xlarge	32.00	AWS Graviton2 Processor	4	4	1	x	x
r6g.2xlarge	64.00	AWS Graviton2 Processor	8	8	1	x	x
r6g.4xlarge	128.00	AWS Graviton2 Processor	16	16	1	x	x
r6g.8xlarge	256.00	AWS Graviton2 Processor	32	32	1	x	x
r6g.12xlarge	384.00	AWS Graviton2 Processor	48	48	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r6g.16xlarge	512.00	AWS Graviton2 Processor	64	64	1	x	x
r6g.metal	512.00	AWS Graviton2 Processor	64	64	1	x	x

R6gd

r6gd.medium	8.00	AWS Graviton2 Processor	1	1	1	x	x
r6gd.large	16.00	AWS Graviton2 Processor	2	2	1	x	x
r6gd.xlarge	32.00	AWS Graviton2 Processor	4	4	1	x	x
r6gd.2xlarge	64.00	AWS Graviton2 Processor	8	8	1	x	x
r6gd.4xlarge	128.00	AWS Graviton2 Processor	16	16	1	x	x
r6gd.8xlarge	256.00	AWS Graviton2 Processor	32	32	1	x	x
r6gd.12xlarge	384.00	AWS Graviton2 Processor	48	48	1	x	x
r6gd.16xlarge	512.00	AWS Graviton2 Processor	64	64	1	x	x
r6gd.metal	512.00	AWS Graviton2 Processor	64	64	1	x	x

R6i

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r6i.large	16.00	Intel Xeon Ice Lake	2	1	2	x	x
r6i.xlarge	32.00	Intel Xeon Ice Lake	4	2	2	x	x
r6i.2xlarge	64.00	Intel Xeon Ice Lake	8	4	2	x	x
r6i.4xlarge	128.00	Intel Xeon Ice Lake	16	8	2	x	x
r6i.8xlarge	256.00	Intel Xeon Ice Lake	32	16	2	x	x
r6i.12xlarge	384.00	Intel Xeon Ice Lake	48	24	2	x	x
r6i.16xlarge	512.00	Intel Xeon Ice Lake	64	32	2	x	x
r6i.24xlarge	768.00	Intel Xeon Ice Lake	96	48	2	x	x
r6i.32xlarge	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
r6i.metal	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
R6idn							
r6idn.large	16.00	Intel Xeon Ice Lake	2	1	2	x	x
r6idn.xlarge	32.00	Intel Xeon Ice Lake	4	2	2	x	x
r6idn.2xlarge	64.00	Intel Xeon Ice Lake	8	4	2	x	x
r6idn.4xlarge	128.00	Intel Xeon Ice Lake	16	8	2	x	x
r6idn.8xlarge	256.00	Intel Xeon Ice Lake	32	16	2	x	x
r6idn.12xlarge	384.00	Intel Xeon Ice Lake	48	24	2	x	x
r6idn.16xlarge	512.00	Intel Xeon Ice Lake	64	32	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r6idn.24xlarge	768.00	Intel Xeon Ice Lake	96	48	2	x	x
r6idn.32xlarge	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
r6idn.metal	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
R6in							
r6in.large	16.00	Intel Xeon Ice Lake	2	1	2	x	x
r6in.xlarge	32.00	Intel Xeon Ice Lake	4	2	2	x	x
r6in.2xlarge	64.00	Intel Xeon Ice Lake	8	4	2	x	x
r6in.4xlarge	128.00	Intel Xeon Ice Lake	16	8	2	x	x
r6in.8xlarge	256.00	Intel Xeon Ice Lake	32	16	2	x	x
r6in.12xlarge	384.00	Intel Xeon Ice Lake	48	24	2	x	x
r6in.16xlarge	512.00	Intel Xeon Ice Lake	64	32	2	x	x
r6in.24xlarge	768.00	Intel Xeon Ice Lake	96	48	2	x	x
r6in.32xlarge	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
r6in.metal	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
R6id							
r6id.large	16.00	Intel Xeon Ice Lake	2	1	2	x	x
r6id.xlarge	32.00	Intel Xeon Ice Lake	4	2	2	x	x
r6id.2xlarge	64.00	Intel Xeon Ice Lake	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r6id.4xlarge	128.00	Intel Xeon Ice Lake	16	8	2	x	x
r6id.8xlarge	256.00	Intel Xeon Ice Lake	32	16	2	x	x
r6id.12xlarge	384.00	Intel Xeon Ice Lake	48	24	2	x	x
r6id.16xlarge	512.00	Intel Xeon Ice Lake	64	32	2	x	x
r6id.24xlarge	768.00	Intel Xeon Ice Lake	96	48	2	x	x
r6id.32xlarge	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
r6id.metal	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
R7a							
r7a.medium	8.00	AMD EPYC 9R14	1	1	1	x	x
r7a.large	16.00	AMD EPYC 9R14	2	2	1	x	x
r7a.xlarge	32.00	AMD EPYC 9R14	4	4	1	x	x
r7a.2xlarge	64.00	AMD EPYC 9R14	8	8	1	x	x
r7a.4xlarge	128.00	AMD EPYC 9R14	16	16	1	x	x
r7a.8xlarge	256.00	AMD EPYC 9R14	32	32	1	x	x
r7a.12xlarge	384.00	AMD EPYC 9R14	48	48	1	x	x
r7a.16xlarge	512.00	AMD EPYC 9R14	64	64	1	x	x
r7a.24xlarge	768.00	AMD EPYC 9R14	96	96	1	x	x
r7a.32xlarge	1024.00	AMD EPYC 9R14	128	128	1	x	x
r7a.48xlarge	1536.00	AMD EPYC 9R14	192	192	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
r7a.metal-48xl	1536.00	AMD EPYC 9R14	192	192	1	x	x
R7g							
r7g.medium	8.00	AWS Graviton3 Processor	1	1	1	x	x
r7g.large	16.00	AWS Graviton3 Processor	2	2	1	x	x
r7g.xlarge	32.00	AWS Graviton3 Processor	4	4	1	x	x
r7g.2xlarge	64.00	AWS Graviton3 Processor	8	8	1	x	x
r7g.4xlarge	128.00	AWS Graviton3 Processor	16	16	1	x	x
r7g.8xlarge	256.00	AWS Graviton3 Processor	32	32	1	x	x
r7g.12xlarge	384.00	AWS Graviton3 Processor	48	48	1	x	x
r7g.16xlarge	512.00	AWS Graviton3 Processor	64	64	1	x	x
r7g.metal	512.00	AWS Graviton3 Processor	64	64	1	x	x
R7gd							
r7gd.medium	8.00	AWS Graviton3 Processor	1	1	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r7gd.large	16.00	AWS Graviton3 Processor	2	2	1	x	x
r7gd.xlarge	32.00	AWS Graviton3 Processor	4	4	1	x	x
r7gd.2xlarge	64.00	AWS Graviton3 Processor	8	8	1	x	x
r7gd.4xlarge	128.00	AWS Graviton3 Processor	16	16	1	x	x
r7gd.8xlarge	256.00	AWS Graviton3 Processor	32	32	1	x	x
r7gd.12xlarge	384.00	AWS Graviton3 Processor	48	48	1	x	x
r7gd.16xlarge	512.00	AWS Graviton3 Processor	64	64	1	x	x
r7gd.metal	512.00	AWS Graviton3 Processor	64	64	1	x	x
R7i							
r7i.large	16.00	Intel Xeon Sapphire Rapids	2	1	2	x	x
r7i.xlarge	32.00	Intel Xeon Sapphire Rapids	4	2	2	x	x
r7i.2xlarge	64.00	Intel Xeon Sapphire Rapids	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r7i.4xlarge	128.00	Intel Xeon Sapphire Rapids	16	8	2	x	x
r7i.8xlarge	256.00	Intel Xeon Sapphire Rapids	32	16	2	x	x
r7i.12xlarge	384.00	Intel Xeon Sapphire Rapids	48	24	2	x	x
r7i.16xlarge	512.00	Intel Xeon Sapphire Rapids	64	32	2	x	x
r7i.24xlarge	768.00	Intel Xeon Sapphire Rapids	96	48	2	x	x
r7i.48xlarge	1536.00	Intel Xeon Sapphire Rapids	192	96	2	x	x
r7i.metal-24xl	768.00	Intel Xeon Sapphire Rapids	96	48	2	x	x
r7i.metal-48xl	1536.00	Intel Xeon Sapphire Rapids	192	96	2	x	x
R7iz							
r7iz.large	16.00	Intel Xeon Sapphire Rapids	2	1	2	x	x
r7iz.xlarge	32.00	Intel Xeon Sapphire Rapids	4	2	2	x	x
r7iz.2xlarge	64.00	Intel Xeon Sapphire Rapids	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r7iz.4xlarge	128.00	Intel Xeon Sapphire Rapids	16	8	2	x	x
r7iz.8xlarge	256.00	Intel Xeon Sapphire Rapids	32	16	2	x	x
r7iz.12xlarge	384.00	Intel Xeon Sapphire Rapids	48	24	2	x	x
r7iz.16xlarge	512.00	Intel Xeon Sapphire Rapids	64	32	2	x	x
r7iz.32xlarge	1024.00	Intel Xeon Sapphire Rapids	128	64	2	x	x
r7iz.meta-l-16xl	512.00	Intel Xeon Sapphire Rapids	64	32	2	x	x
r7iz.meta-l-32xl	1024.00	Intel Xeon Sapphire Rapids	128	64	2	x	x
R8g							
r8g.medium	8.00	AWS Graviton4 Processor	1	1	1	x	x
r8g.large	16.00	AWS Graviton4 Processor	2	2	1	x	x
r8g.xlarge	32.00	AWS Graviton4 Processor	4	4	1	x	x
r8g.2xlarge	64.00	AWS Graviton4 Processor	8	8	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
r8g.4xlarge	128.00	AWS Graviton4 Processor	16	16	1	x	x
r8g.8xlarge	256.00	AWS Graviton4 Processor	32	32	1	x	x
r8g.12xlarge	384.00	AWS Graviton4 Processor	48	48	1	x	x
r8g.16xlarge	512.00	AWS Graviton4 Processor	64	64	1	x	x
r8g.24xlarge	768.00	AWS Graviton4 Processor	96	96	1	x	x
r8g.48xlarge	1536.00	AWS Graviton4 Processor	192	192	1	x	x
r8g.metal-24xl	768.00	AWS Graviton4 Processor	96	96	1	x	x
r8g.metal-48xl	1536.00	AWS Graviton4 Processor	192	192	1	x	x
R8gd							
r8gd.medium	8.00	AWS Graviton4 Processor	1	1	1	x	x
r8gd.large	16.00	AWS Graviton4 Processor	2	2	1	x	x
r8gd.xlarge	32.00	AWS Graviton4 Processor	4	4	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r8gd.2xlarge	64.00	AWS Graviton4 Processor	8	8	1	x	x
r8gd.4xlarge	128.00	AWS Graviton4 Processor	16	16	1	x	x
r8gd.8xlarge	256.00	AWS Graviton4 Processor	32	32	1	x	x
r8gd.12xlarge	384.00	AWS Graviton4 Processor	48	48	1	x	x
r8gd.16xlarge	512.00	AWS Graviton4 Processor	64	64	1	x	x
r8gd.24xlarge	768.00	AWS Graviton4 Processor	96	96	1	x	x
r8gd.48xlarge	1536.00	AWS Graviton4 Processor	192	192	1	x	x
r8gd.meta-l-24xl	768.00	AWS Graviton4 Processor	96	96	1	x	x
r8gd.meta-l-48xl	1536.00	AWS Graviton4 Processor	192	192	1	x	x
R8i							
r8i.large	16.00	Intel Xeon Granite Rapids	2	1	2	x	x
r8i.xlarge	32.00	Intel Xeon Granite Rapids	4	2	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r8i.2xlarge	64.00	Intel Xeon Granite Rapids	8	4	2	x	x
r8i.4xlarge	128.00	Intel Xeon Granite Rapids	16	8	2	x	x
r8i.8xlarge	256.00	Intel Xeon Granite Rapids	32	16	2	x	x
r8i.12xlarge	384.00	Intel Xeon Granite Rapids	48	24	2	x	x
r8i.16xlarge	512.00	Intel Xeon Granite Rapids	64	32	2	x	x
r8i.24xlarge	768.00	Intel Xeon Granite Rapids	96	48	2	x	x
r8i.32xlarge	1024.00	Intel Xeon Granite Rapids	128	64	2	x	x
r8i.48xlarge	1536.00	Intel Xeon Granite Rapids	192	96	2	x	x
r8i.96xlarge	3072.00	Intel Xeon Granite Rapids	384	192	2	x	x
r8i.metal-48xl	1536.00	Intel Xeon Granite Rapids	192	96	2	x	x
r8i.metal-96xl	3072.00	Intel Xeon Granite Rapids	384	192	2	x	x

R8i-flex

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r8i-flex.large	16.00	Intel Xeon Granite Rapids	2	1	2	x	x
r8i-flex.xlarge	32.00	Intel Xeon Granite Rapids	4	2	2	x	x
r8i-flex.2xlarge	64.00	Intel Xeon Granite Rapids	8	4	2	x	x
r8i-flex.4xlarge	128.00	Intel Xeon Granite Rapids	16	8	2	x	x
r8i-flex.8xlarge	256.00	Intel Xeon Granite Rapids	32	16	2	x	x
r8i-flex.12xlarge	384.00	Intel Xeon Granite Rapids	48	24	2	x	x
r8i-flex.16xlarge	512.00	Intel Xeon Granite Rapids	64	32	2	x	x
U-3tb1							
u-3tb1.56xlarge	3072.00	Intel Xeon Platinum 8176M	224	112	2	x	x
U-6tb1							
u-6tb1.56xlarge	6144.00	Intel Xeon Platinum 8176M	224	224	1	x	x
u-6tb1.112xlarge	6144.00	Intel Xeon Platinum 8176M	448	224	2	x	x
u-6tb1.metal	6144.00	Intel Xeon Platinum 8176M	448	224	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
U-9tb1							
u-9tb1.11 2xlarge	9216.00	Intel Xeon Platinum 8176M	448	224	2	x	x
u-9tb1.metal	9216.00	Intel Xeon Platinum 8176M	448	224	2	x	x
U-12tb1							
u-12tb1.1 12xlarge	12288.0	Intel Xeon Platinum 8176M	448	224	2	x	x
u-12tb1.metal	12288.0	Intel Xeon Platinum 8176M	448	224	2	x	x
U-18tb1							
u-18tb1.1 12xlarge	18432.0	Intel Xeon Platinum 8280L	448	224	2	x	x
u-18tb1.metal	18432.0	Intel Xeon Platinum 8280L	448	224	2	x	x
U-24tb1							
u-24tb1.1 12xlarge	24576.0	Intel Xeon Platinum 8280L	448	224	2	x	x
u-24tb1.metal	24576.0	Intel Xeon Platinum 8280L	448	224	2	x	x
U7i-6tb							
u7i-6tb.1 12xlarge	6144.00	Intel Xeon Sapphire Rapids	448	224	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
U7i-8tb							
u7i-8tb.12xlarge	8192.00	Intel Xeon Sapphire Rapids	448	224	2	x	x
U7i-12tb							
u7i-12tb.224xlarge	12288.0	Intel Xeon Sapphire Rapids	896	448	2	x	x
U7in-16tb							
u7in-16tb.224xlarge	16384.0	Intel Xeon Sapphire Rapids	896	448	2	x	x
U7in-24tb							
u7in-24tb.224xlarge	24576.0	Intel Xeon Sapphire Rapids	896	448	2	x	x
U7in-32tb							
u7in-32tb.224xlarge	32768.0	Intel Xeon Sapphire Rapids	896	448	2	x	x
U7inh-32tb							
u7inh-32tb.480xlarge	32768.0	Intel Xeon Sapphire Rapids	1920	960	2	x	x
X1							
x1.16xlarge	976.00	Intel Xeon E7 8880 v3	64	32	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
x1.32xlarge	1952.00	Intel Xeon E7 8880 v3	128	64	2	x	x
X1e							
x1e.xlarge	122.00	Intel Haswell E7 8880v3	4	2	2	x	x
x1e.2xlarge	244.00	Intel Haswell E7 8880v3	8	4	2	x	x
x1e.4xlarge	488.00	Intel Haswell E7 8880v3	16	8	2	x	x
x1e.8xlarge	976.00	Intel Haswell E7 8880v3	32	16	2	x	x
x1e.16xlarge	1952.00	Intel Haswell E7 8880v3	64	32	2	x	x
x1e.32xlarge	3904.00	Intel Haswell E7 8880v3	128	64	2	x	x
X2gd							
x2gd.medium	16.00	AWS Graviton2 Processor	1	1	1	x	x
x2gd.large	32.00	AWS Graviton2 Processor	2	2	1	x	x
x2gd.xlarge	64.00	AWS Graviton2 Processor	4	4	1	x	x
x2gd.2xlarge	128.00	AWS Graviton2 Processor	8	8	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
x2gd.4xlarge	256.00	AWS Graviton2 Processor	16	16	1	x	x
x2gd.8xlarge	512.00	AWS Graviton2 Processor	32	32	1	x	x
x2gd.12xlarge	768.00	AWS Graviton2 Processor	48	48	1	x	x
x2gd.16xlarge	1024.00	AWS Graviton2 Processor	64	64	1	x	x
x2gd.metal	1024.00	AWS Graviton2 Processor	64	64	1	x	x
X2idn							
x2idn.16xlarge	1024.00	Intel Xeon Ice Lake	64	32	2	x	x
x2idn.24xlarge	1536.00	Intel Xeon Ice Lake	96	48	2	x	x
x2idn.32xlarge	2048.00	Intel Xeon Ice Lake	128	64	2	x	x
x2idn.metal	2048.00	Intel Xeon Ice Lake	128	64	2	x	x
X2iedn							
x2iedn.xlarge	128.00	Intel Xeon Ice Lake	4	2	2	x	x
x2iedn.2xlarge	256.00	Intel Xeon Ice Lake	8	4	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
x2iedn.4xlarge	512.00	Intel Xeon Ice Lake	16	8	2	x	x
x2iedn.8xlarge	1024.00	Intel Xeon Ice Lake	32	16	2	x	x
x2iedn.16xlarge	2048.00	Intel Xeon Ice Lake	64	32	2	x	x
x2iedn.24xlarge	3072.00	Intel Xeon Ice Lake	96	48	2	x	x
x2iedn.32xlarge	4096.00	Intel Xeon Ice Lake	128	64	2	x	x
x2iedn.metal	4096.00	Intel Xeon Ice Lake	128	64	2	x	x
X2iezn							
x2iezn.2xlarge	256.00	Intel Xeon Platinum 8252	8	4	2	x	x
x2iezn.4xlarge	512.00	Intel Xeon Platinum 8252	16	8	2	x	x
x2iezn.6xlarge	768.00	Intel Xeon Platinum 8252	24	12	2	x	x
x2iezn.8xlarge	1024.00	Intel Xeon Platinum 8252	32	16	2	x	x
x2iezn.12xlarge	1536.00	Intel Xeon Platinum 8252	48	24	2	x	x
x2iezn.metal	1536.00	Intel Xeon Platinum 8252	48	24	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
X8g							
x8g.medium	16.00	AWS Graviton4 Processor	1	1	1	x	x
x8g.large	32.00	AWS Graviton4 Processor	2	2	1	x	x
x8g.xlarge	64.00	AWS Graviton4 Processor	4	4	1	x	x
x8g.2xlarge	128.00	AWS Graviton4 Processor	8	8	1	x	x
x8g.4xlarge	256.00	AWS Graviton4 Processor	16	16	1	x	x
x8g.8xlarge	512.00	AWS Graviton4 Processor	32	32	1	x	x
x8g.12xlarge	768.00	AWS Graviton4 Processor	48	48	1	x	x
x8g.16xlarge	1024.00	AWS Graviton4 Processor	64	64	1	x	x
x8g.24xlarge	1536.00	AWS Graviton4 Processor	96	96	1	x	x
x8g.48xlarge	3072.00	AWS Graviton4 Processor	192	192	1	x	x
x8g.metal-24xl	1536.00	AWS Graviton4 Processor	96	96	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
x8g.metal-48xl	3072.00	AWS Graviton4 Processor	192	192	1	x	x
z1d							
z1d.large	16.00	Intel Xeon Platinum 8151	2	1	2	x	x
z1d.xlarge	32.00	Intel Xeon Platinum 8151	4	2	2	x	x
z1d.2xlarge	64.00	Intel Xeon Platinum 8151	8	4	2	x	x
z1d.3xlarge	96.00	Intel Xeon Platinum 8151	12	6	2	x	x
z1d.6xlarge	192.00	Intel Xeon Platinum 8151	24	12	2	x	x
z1d.12xlarge	384.00	Intel Xeon Platinum 8151	48	24	2	x	x
z1d.metal	384.00	Intel Xeon Platinum 8151	48	24	2	x	x

Network specifications

Note

R8g, R8gd, R8i, R8i-flex, X8g instance types support configurable bandwidth weightings. With these instance types, you can optimize an instance's bandwidth for either networking performance or Amazon EBS performance. The following table shows the default

networking bandwidth performance for these instance types. For the supported configurable weightings, see [Configurable bandwidth weighting preferences](#).

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
R5								
r5.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
r5.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
r5.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
r5.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
r5.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
r5.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓
r5.16xlarge	20 Gigabit	x	✓	x	1	15	50	✓
r5.24xlarge	25 Gigabit	x	✓	x	1	15	50	✓
r5.metal	25 Gigabit	x	✓	x	1	15	50	✓
R5a								
r5a.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
r5a.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
r5a.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
r5a.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
r5a.8xlarge ¹	7.5 / 10.0	x	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r5a.12xlarge	10 Gigabit	x	✓	x	1	8	30	✓
r5a.16xlarge	12 Gigabit	x	✓	x	1	15	50	✓
r5a.24xlarge	20 Gigabit	x	✓	x	1	15	50	✓
R5ad								
r5ad.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
r5ad.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
r5ad.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
r5ad.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
r5ad.8xlarge ¹	7.5 / 10.0	x	✓	x	1	8	30	✓
r5ad.12xlarge	10 Gigabit	x	✓	x	1	8	30	✓
r5ad.16xlarge	12 Gigabit	x	✓	x	1	15	50	✓
r5ad.24xlarge	20 Gigabit	x	✓	x	1	15	50	✓
R5b								
r5b.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
r5b.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
r5b.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
r5b.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
r5b.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
r5b.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r5b.16xlarge	20 Gigabit	✗	✓	✗	1	15	50	✓
r5b.24xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
r5b.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
R5d								
r5d.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
r5d.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
r5d.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
r5d.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
r5d.8xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
r5d.12xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
r5d.16xlarge	20 Gigabit	✗	✓	✗	1	15	50	✓
r5d.24xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
r5d.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
R5dn								
r5dn.large ¹	2.1 / 25.0	✗	✓	✗	1	3	10	✓
r5dn.xlarge ¹	4.1 / 25.0	✗	✓	✗	1	4	15	✓
r5dn.2xlarge ¹	8.125 / 25.0	✗	✓	✗	1	4	15	✓
r5dn.4xlarge ¹	16.25 / 25.0	✗	✓	✗	1	8	30	✓
r5dn.8xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r5dn.12xlarge	50 Gigabit	✗	✓	✗	1	8	30	✓
r5dn.16xlarge	75 Gigabit	✗	✓	✗	1	15	50	✓
r5dn.24xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
r5dn.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
R5n								
r5n.large ¹	2.1 / 25.0	✗	✓	✗	1	3	10	✓
r5n.xlarge ¹	4.1 / 25.0	✗	✓	✗	1	4	15	✓
r5n.2xlarge ¹	8.125 / 25.0	✗	✓	✗	1	4	15	✓
r5n.4xlarge ¹	16.25 / 25.0	✗	✓	✗	1	8	30	✓
r5n.8xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
r5n.12xlarge	50 Gigabit	✗	✓	✗	1	8	30	✓
r5n.16xlarge	75 Gigabit	✗	✓	✗	1	15	50	✓
r5n.24xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
r5n.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
R6a								
r6a.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
r6a.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
r6a.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
r6a.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r6a.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
r6a.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
r6a.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
r6a.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
r6a.32xlarge	50 Gigabit	✗	✓	✓	1	15	50	✓
r6a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r6a.metal	50 Gigabit	✓	✓	✓	1	15	50	✓

R6g

r6g.medium ¹	0.5 / 10.0	✗	✓	✗	1	2	4	✓
r6g.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
r6g.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
r6g.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
r6g.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
r6g.8xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
r6g.12xlarge	20 Gigabit	✗	✓	✗	1	8	30	✓
r6g.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
r6g.metal	25 Gigabit	✗	✓	✗	1	15	50	✓

R6gd

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r6gd.medium ¹	0.5 / 10.0	✗	✓	✗	1	2	4	✓
r6gd.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
r6gd.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
r6gd.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
r6gd.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
r6gd.8xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
r6gd.12xlarge	20 Gigabit	✗	✓	✗	1	8	30	✓
r6gd.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
r6gd.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
R6i								
r6i.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
r6i.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
r6i.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
r6i.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
r6i.8xlarge	12.5 Gigabit	✗	✓	✓	1	8	30	✓
r6i.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
r6i.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
r6i.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r6i.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r6i.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
R6idn								
r6idn.large ¹	3.125 / 25.0	✗	✓	✗	1	3	10	✓
r6idn.xlarge ¹	6.25 / 30.0	✗	✓	✗	1	4	15	✓
r6idn.2xlarge ¹	12.5 / 40.0	✗	✓	✗	1	4	15	✓
r6idn.4xlarge ¹	25.0 / 50.0	✗	✓	✗	1	8	30	✓
r6idn.8xlarge	50 Gigabit	✗	✓	✓	1	8	30	✓
r6idn.12xlarge	75 Gigabit	✗	✓	✓	1	8	30	✓
r6idn.16xlarge	100 Gigabit	✗	✓	✓	1	15	50	✓
r6idn.24xlarge	150 Gigabit	✗	✓	✓	1	15	50	✓
r6idn.32xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
r6idn.metal	200 Gigabit	✓	✓	✓	2	16	50	✓
R6in								
r6in.large ¹	3.125 / 25.0	✗	✓	✗	1	3	10	✓
r6in.xlarge ¹	6.25 / 30.0	✗	✓	✗	1	4	15	✓
r6in.2xlarge ¹	12.5 / 40.0	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r6in.4xlarge ¹	25.0 / 50.0	✗	✓	✗	1	8	30	✓
r6in.8xlarge	50 Gigabit	✗	✓	✓	1	8	30	✓
r6in.12xlarge	75 Gigabit	✗	✓	✓	1	8	30	✓
r6in.16xlarge	100 Gigabit	✗	✓	✓	1	15	50	✓
r6in.24xlarge	150 Gigabit	✗	✓	✓	1	15	50	✓
r6in.32xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
r6in.metal	200 Gigabit	✓	✓	✓	2	16	50	✓
R6id								
r6id.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
r6id.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
r6id.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
r6id.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
r6id.8xlarge	12.5 Gigabit	✗	✓	✓	1	8	30	✓
r6id.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
r6id.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
r6id.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
r6id.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r6id.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
R7a								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r7a.medium ¹	0.39 / 12.5	✗	✓	✗	1	2	4	✓
r7a.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
r7a.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
r7a.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
r7a.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
r7a.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
r7a.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
r7a.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
r7a.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
r7a.32xlarge	50 Gigabit	✗	✓	✓	1	15	50	✓
r7a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r7a.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
R7g								
r7g.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
r7g.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
r7g.xlarge ¹	1.876 / 12.5	✗	✓	✗	1	4	15	✓
r7g.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
r7g.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r7g.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
r7g.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
r7g.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓
r7g.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
R7gd								
r7gd.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
r7gd.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
r7gd.xlarge ¹	1.876 / 12.5	✗	✓	✗	1	4	15	✓
r7gd.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
r7gd.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
r7gd.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
r7gd.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
r7gd.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓
r7gd.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
R7i								
r7i.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
r7i.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
r7i.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r7i.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
r7i.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
r7i.12xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
r7i.16xlarge	25 Gigabit	✗	✓	✓	1	15	50	✓
r7i.24xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
r7i.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r7i.metal-24xl	37.5 Gigabit	✗	✓	✓	1	15	50	✓
r7i.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
R7iz								
r7iz.large ¹	0.781 / 12.5	✗	✓	✗	1	3	10	✓
r7iz.xlarge ¹	1.562 / 12.5	✗	✓	✗	1	4	15	✓
r7iz.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
r7iz.4xlarge ¹	6.25 / 12.5	✗	✓	✗	1	8	30	✓
r7iz.8xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
r7iz.12xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
r7iz.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
r7iz.32xlarge	50 Gigabit	✓	✓	✗	1	15	50	✓
r7iz.metal-16xl	25 Gigabit	✗	✓	✗	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r7iz.meta-l-32xl	50 Gigabit	✓	✓	✗	1	15	50	✓
R8g								
r8g.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
r8g.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
r8g.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	15	✓
r8g.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
r8g.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
r8g.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
r8g.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
r8g.16xlarge	30 Gigabit	✗	✓	✓	1	15	50	✓
r8g.24xlarge	40 Gigabit	✓	✓	✓	1	15	50	✓
r8g.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r8g.metal-24xl	40 Gigabit	✓	✓	✓	1	15	50	✓
r8g.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
R8gd								
r8gd.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r8gd.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
r8gd.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	15	✓
r8gd.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
r8gd.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
r8gd.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
r8gd.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
r8gd.16xlarge	30 Gigabit	✗	✓	✓	1	15	50	✓
r8gd.24xlarge	40 Gigabit	✓	✓	✓	1	15	50	✓
r8gd.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r8gd.meta l-24xl	40 Gigabit	✓	✓	✓	1	15	50	✓
r8gd.meta l-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
R8i								
r8i.large ¹	0.937 / 12.5	✗	✓	✗	1	3	20	✓
r8i.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	30	✓
r8i.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	30	✓
r8i.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	50	✓
r8i.8xlarge	15 Gigabit	✗	✓	✗	1	10	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r8i.12xlarge	22.5 Gigabit	✗	✓	✗	1	12	50	✓
r8i.16xlarge	30 Gigabit	✗	✓	✗	1	16	64	✓
r8i.24xlarge	40 Gigabit	✗	✓	✓	1	16	64	✓
r8i.32xlarge	50 Gigabit	✗	✓	✓	1	24	64	✓
r8i.48xlarge	75 Gigabit	✓	✓	✓	1	24	64	✓
r8i.96xlarge	100 Gigabit	✓	✓	✓	1	24	64	✓
r8i.metal-48xl	75 Gigabit	✓	✓	✓	1	24	64	✓
r8i.metal-96xl	100 Gigabit	✓	✓	✓	1	24	64	✓
R8i-flex								
r8i-flex.large ¹	0.468 / 12.5	✗	✓	✗	1	3	20	✓
r8i-flex.xlarge ¹	0.937 / 12.5	✗	✓	✗	1	4	30	✓
r8i-flex.2xlarge ¹	1.875 / 15.0	✗	✓	✗	1	4	30	✓
r8i-flex.4xlarge ¹	3.75 / 15.0	✗	✓	✗	1	8	50	✓
r8i-flex.8xlarge ¹	7.5 / 15.0	✗	✓	✗	1	10	50	✓
r8i-flex.12xlarge ¹	11.25 / 22.5	✗	✓	✗	1	12	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
r8i-flex.16xlarge ¹	15.0 / 30.0	x	✓	x	1	16	64	✓
U-3tb1								
u-3tb1.56xlarge	50 Gigabit	x	✓	x	1	8	30	✓
U-6tb1								
u-6tb1.56xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-6tb1.112xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-6tb1.metal	100	x	✓	x	1	5	30	✓
U-9tb1								
u-9tb1.112xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-9tb1.metal	100	x	✓	x	1	5	30	✓
U-12tb1								
u-12tb1.12xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-12tb1.metal	100	x	✓	x	1	5	30	✓
U-18tb1								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
u-18tb1.1 12xlarge	100 Gigabit	✗	✓	✗	1	15	50	✓
u-18tb1.metal	100 Gigabit	✗	✓	✗	1	15	50	✓
U-24tb1								
u-24tb1.1 12xlarge	100 Gigabit	✗	✓	✗	1	15	50	✓
u-24tb1.metal	100 Gigabit	✗	✓	✗	1	15	50	✓
U7i-6tb								
u7i-6tb.1 12xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
U7i-8tb								
u7i-8tb.1 12xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
U7i-12tb								
u7i-12tb. 224xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
U7in-16tb								
u7in-16tb .224xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
U7in-24tb								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
u7in-24tb.224xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
U7in-32tb								
u7in-32tb.224xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
U7inh-32tb								
u7inh-32tb.480xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓
X1								
x1.16xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
x1.32xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
X1e								
x1e.xlarge ¹	0.625 / 10.0	✗	✓	✗	1	3	10	✓
x1e.2xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
x1e.4xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
x1e.8xlarge ¹	5.0 / 10.0	✗	✓	✗	1	4	15	✓
x1e.16xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
x1e.32xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
X2gd								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
x2gd.medium ¹	0.5 / 10.0	✗	✓	✗	1	2	4	✓
x2gd.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
x2gd.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
x2gd.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
x2gd.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
x2gd.8xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
x2gd.12xlarge	20 Gigabit	✗	✓	✗	1	8	30	✓
x2gd.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
x2gd.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
X2idn								
x2idn.16xlarge	50 Gigabit	✗	✓	✓	1	15	50	✓
x2idn.24xlarge	75 Gigabit	✗	✓	✓	1	15	50	✓
x2idn.32xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
x2idn.metal	100 Gigabit	✓	✓	✓	1	15	50	✓
X2iedn								
x2iedn.xlarge ¹	1.875 / 25.0	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
x2iedn.2xlarge ¹	5.0 / 25.0	✗	✓	✗	1	4	15	✓
x2iedn.4xlarge ¹	12.5 / 25.0	✗	✓	✗	1	8	30	✓
x2iedn.8xlarge	25 Gigabit	✗	✓	✓	1	8	30	✓
x2iedn.16xlarge	50 Gigabit	✗	✓	✓	1	15	50	✓
x2iedn.24xlarge	75 Gigabit	✗	✓	✓	1	15	50	✓
x2iedn.32xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
x2iedn.metal	100 Gigabit	✓	✓	✓	1	15	50	✓
X2iezn								
x2iezn.2xlarge ¹	12.5 / 25.0	✗	✓	✗	1	4	15	✓
x2iezn.4xlarge ¹	15.0 / 25.0	✗	✓	✗	1	8	30	✓
x2iezn.6xlarge	50 Gigabit	✗	✓	✗	1	8	30	✓
x2iezn.8xlarge	75 Gigabit	✗	✓	✗	1	8	30	✓
x2iezn.12xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
x2iezn.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
X8g								
x8g.medium ¹	0.52 / 12.5	✗	✓	✗	1	2	4	✓
x8g.large ¹	0.937 / 12.5	✗	✓	✗	1	3	10	✓
x8g.xlarge ¹	1.875 / 12.5	✗	✓	✗	1	4	15	✓
x8g.2xlarge ¹	3.75 / 15.0	✗	✓	✗	1	4	15	✓
x8g.4xlarge ¹	7.5 / 15.0	✗	✓	✗	1	8	30	✓
x8g.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
x8g.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
x8g.16xlarge	30 Gigabit	✗	✓	✓	1	15	50	✓
x8g.24xlarge	40 Gigabit	✓	✓	✓	1	15	50	✓
x8g.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
x8g.metal-24xl	40 Gigabit	✓	✓	✓	1	15	50	✓
x8g.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
z1d								
z1d.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
z1d.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
z1d.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
z1d.3xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
z1d.6xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
z1d.12xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
z1d.metal	25 Gigabit	✗	✓	✗	1	15	50	✓

Note

¹ These instances have a baseline bandwidth and can use a network I/O credit mechanism to burst beyond their baseline bandwidth on a best effort basis. Other instances types can sustain their maximum performance indefinitely. For more information, see [instance network bandwidth](#).

For r6in.32xlarge, r6in.metal, r6idn.32xlarge, and r6idn.metal, you must attach at least 2 ENIs, to separate network cards, to achieve 200 Gbps throughput. Each ENI attached to a network card can achieve up to 170 Gbps.

u-6tb1.metal, u-9tb1.metal, and u-12tb1.metal instances launched after March 12, 2020 provide network performance of 100 Gbps. u-6tb1.metal, u-9tb1.metal, and u-12tb1.metal instances launched before March 12, 2020 might only provide network performance of 25 Gbps. To ensure that instances launched before March 12, 2020 have a network performance of 100 Gbps, contact your account team to upgrade your instance at no additional cost.

Amazon EBS specifications

The following table indicates which instance types are Amazon EBS optimized by default and which optionally support it. It also describes their EBS-optimized performance, including dedicated bandwidth to Amazon EBS, the typical maximum aggregate throughput that can be achieved on

that dedicated connection with a streaming read workload and 128 KiB I/O size, and the maximum IOPS the instance type can support when using a 16 KiB I/O size. Instance types not listed do not support Amazon EBS optimization.

Important

An instance's EBS performance is bounded by the instance's performance limits, or the aggregated performance of its attached volumes, whichever is smaller. To achieve maximum EBS performance, an instance must have attached volumes that provide a combined performance equal to or greater than the maximum instance performance. For example, to achieve 80,000 IOPS for `r6i.16xlarge`, the instance must have at least 5 gp3 volumes provisioned with 16,000 IOPS each (5 volumes x 16,000 IOPS = 80,000 IOPS).

We recommend that you choose an EBS-optimized instance type that provides more dedicated Amazon EBS throughput than your application needs; otherwise, the connection between Amazon EBS and Amazon EC2 can become a performance bottleneck.

Note

- R8g, R8gd, R8i, R8i-flex, X8g virtualized instance types support configurable bandwidth weightings. With these instance types, you can optimize an instance's bandwidth for either networking performance or Amazon EBS performance. The following table shows the default networking bandwidth performance for these instance types. Bare metal instance types are not supported. For the supported configurable weightings, see [Configurable bandwidth weighting preferences](#).
- For maximum IOPS performance with U7i instances, we recommend that you use io2 BlockExpress volumes.

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
R5					
r5.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	Up to 27 (Shared limit)
r5.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	Up to 27 (Shared limit)
r5.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	Up to 27 (Shared limit)
r5.4xlarge	4750.00	593.75	18750.00	✓	Up to 27 (Shared limit)
r5.8xlarge	6800.00	850.00	30000.00	✓	Up to 27 (Shared limit)
r5.12xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
r5.16xlarge	13600.00	1700.00	60000.00	✓	Up to 27 (Shared limit)
r5.24xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
r5.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
R5a					
r5a.large ¹	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r5a.xlarge ¹	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	Up to 27 (Shared limit)
r5a.2xlarge ¹	1580.00 / 2880.00	197.50 / 360.00	8333.00 / 16000.00	✓	Up to 27 (Shared limit)
r5a.4xlarge	2880.00	360.00	16000.00	✓	Up to 27 (Shared limit)
r5a.8xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
r5a.12xlarge	6780.00	847.50	30000.00	✓	Up to 27 (Shared limit)
r5a.16xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
r5a.24xlarge	13570.00	1696.25	60000.00	✓	Up to 27 (Shared limit)
R5ad					
r5ad.large ¹	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	Up to 26 (Shared limit)
r5ad.xlarge ¹	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	Up to 26 (Shared limit)
r5ad.2xlarge ¹	1580.00 / 2880.00	197.50 / 360.00	8333.00 / 16000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r5ad.4xlarge	2880.00	360.00	16000.00	✓	Up to 25 (Shared limit)
r5ad.8xlarge	4750.00	593.75	20000.00	✓	Up to 25 (Shared limit)
r5ad.12xlarge	6780.00	847.50	30000.00	✓	Up to 25 (Shared limit)
r5ad.16xlarge	9500.00	1187.50	40000.00	✓	Up to 23 (Shared limit)
r5ad.24xlarge	13570.00	1696.25	60000.00	✓	Up to 23 (Shared limit)

R5b

r5b.large ¹	1250.00 / 10000.00	156.25 / 1250.00	5417.00 / 43333.00	✓	Up to 27 (Shared limit)
r5b.xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10833.00 / 43333.00	✓	Up to 27 (Shared limit)
r5b.2xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	21667.00 / 43333.00	✓	Up to 27 (Shared limit)
r5b.4xlarge	10000.00	1250.00	43333.00	✓	Up to 27 (Shared limit)
r5b.8xlarge	20000.00	2500.00	86667.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r5b.12xlarge	30000.00	3750.00	130000.00	✓	Up to 27 (Shared limit)
r5b.16xlarge	40000.00	5000.00	173333.00	✓	Up to 27 (Shared limit)
r5b.24xlarge	60000.00	7500.00	260000.00	✓	Up to 27 (Shared limit)
r5b.metal	60000.00	7500.00	260000.00	✓	Up to 31 (Shared limit)
R5d					
r5d.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	Up to 26 (Shared limit)
r5d.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	Up to 26 (Shared limit)
r5d.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	Up to 26 (Shared limit)
r5d.4xlarge	4750.00	593.75	18750.00	✓	Up to 25 (Shared limit)
r5d.8xlarge	6800.00	850.00	30000.00	✓	Up to 25 (Shared limit)
r5d.12xlarge	9500.00	1187.50	40000.00	✓	Up to 25 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r5d.16xlarge	13600.00	1700.00	60000.00	✓	Up to 23 (Shared limit)
r5d.24xlarge	19000.00	2375.00	80000.00	✓	Up to 23 (Shared limit)
r5d.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

R5dn

r5dn.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	Up to 26 (Shared limit)
r5dn.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	Up to 26 (Shared limit)
r5dn.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	Up to 26 (Shared limit)
r5dn.4xlarge	4750.00	593.75	18750.00	✓	Up to 25 (Shared limit)
r5dn.8xlarge	6800.00	850.00	30000.00	✓	Up to 25 (Shared limit)
r5dn.12xlarge	9500.00	1187.50	40000.00	✓	Up to 25 (Shared limit)
r5dn.16xlarge	13600.00	1700.00	60000.00	✓	Up to 23 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r5dn.24xlarge	19000.00	2375.00	80000.00	✓	Up to 23 (Shared limit)
r5dn.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
R5n					
r5n.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	Up to 27 (Shared limit)
r5n.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	Up to 27 (Shared limit)
r5n.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	Up to 27 (Shared limit)
r5n.4xlarge	4750.00	593.75	18750.00	✓	Up to 27 (Shared limit)
r5n.8xlarge	6800.00	850.00	30000.00	✓	Up to 27 (Shared limit)
r5n.12xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
r5n.16xlarge	13600.00	1700.00	60000.00	✓	Up to 27 (Shared limit)
r5n.24xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r5n.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

R6a

r6a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
r6a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)
r6a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)
r6a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)
r6a.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
r6a.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
r6a.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)
r6a.24xlarge	30000.00	3750.00	120000.00	✓	Up to 27 (Shared limit)
r6a.32xlarge	40000.00	5000.00	160000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r6a.48xlarge	40000.00	5000.00	240000.00	✓	Up to 27 (Shared limit)
r6a.metal	40000.00	5000.00	240000.00	✓	Up to 31 (Shared limit)
R6g					
r6g.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	Up to 27 (Shared limit)
r6g.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	Up to 27 (Shared limit)
r6g.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	Up to 27 (Shared limit)
r6g.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	Up to 27 (Shared limit)
r6g.4xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
r6g.8xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
r6g.12xlarge	14250.00	1781.25	50000.00	✓	Up to 27 (Shared limit)
r6g.16xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r6g.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

R6gd

r6gd.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	Up to 26 (Shared limit)
r6gd.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	Up to 26 (Shared limit)
r6gd.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	Up to 26 (Shared limit)
r6gd.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	Up to 26 (Shared limit)
r6gd.4xlarge	4750.00	593.75	20000.00	✓	Up to 26 (Shared limit)
r6gd.8xlarge	9500.00	1187.50	40000.00	✓	Up to 26 (Shared limit)
r6gd.12xlarge	14250.00	1781.25	50000.00	✓	Up to 25 (Shared limit)
r6gd.16xlarge	19000.00	2375.00	80000.00	✓	Up to 25 (Shared limit)
r6gd.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

R6i

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r6i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
r6i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)
r6i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)
r6i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)
r6i.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
r6i.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
r6i.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)
r6i.24xlarge	30000.00	3750.00	120000.00	✓	Up to 27 (Shared limit)
r6i.32xlarge	40000.00	5000.00	160000.00	✓	Up to 27 (Shared limit)
r6i.metal	40000.00	5000.00	160000.00	✓	Up to 31 (Shared limit)
R6idn					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r6idn.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	Up to 26 (Shared limit)
r6idn.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	Up to 26 (Shared limit)
r6idn.2xlarge ¹	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	Up to 26 (Shared limit)
r6idn.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	Up to 26 (Shared limit)
r6idn.8xlarge	25000.00	3125.00	100000.00	✓	Up to 26 (Shared limit)
r6idn.12xlarge	37500.00	4687.50	150000.00	✓	Up to 25 (Shared limit)
r6idn.16xlarge	50000.00	6250.00	200000.00	✓	Up to 25 (Shared limit)
r6idn.24xlarge	75000.00	9375.00	300000.00	✓	Up to 23 (Shared limit)
r6idn.32xlarge	100000.00	12500.00	400000.00	✓	Up to 23 (Shared limit)
r6idn.metal	100000.00	12500.00	400000.00	✓	Up to 31 (Shared limit)
R6in					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r6in.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	Up to 27 (Shared limit)
r6in.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	Up to 27 (Shared limit)
r6in.2xlarge ¹	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	Up to 27 (Shared limit)
r6in.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	Up to 27 (Shared limit)
r6in.8xlarge	25000.00	3125.00	100000.00	✓	Up to 27 (Shared limit)
r6in.12xlarge	37500.00	4687.50	150000.00	✓	Up to 27 (Shared limit)
r6in.16xlarge	50000.00	6250.00	200000.00	✓	Up to 27 (Shared limit)
r6in.24xlarge	75000.00	9375.00	300000.00	✓	Up to 27 (Shared limit)
r6in.32xlarge	100000.00	12500.00	400000.00	✓	Up to 27 (Shared limit)
r6in.metal	100000.00	12500.00	400000.00	✓	Up to 31 (Shared limit)
R6id					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r6id.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	Up to 26 (Shared limit)
r6id.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 26 (Shared limit)
r6id.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 26 (Shared limit)
r6id.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
r6id.8xlarge	10000.00	1250.00	40000.00	✓	Up to 26 (Shared limit)
r6id.12xlarge	15000.00	1875.00	60000.00	✓	Up to 25 (Shared limit)
r6id.16xlarge	20000.00	2500.00	80000.00	✓	Up to 25 (Shared limit)
r6id.24xlarge	30000.00	3750.00	120000.00	✓	Up to 23 (Shared limit)
r6id.32xlarge	40000.00	5000.00	160000.00	✓	Up to 23 (Shared limit)
r6id.metal	40000.00	5000.00	160000.00	✓	Up to 31 (Shared limit)
R7a					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r7a.medium ¹	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
r7a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
r7a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
r7a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
r7a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
r7a.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
r7a.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
r7a.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r7a.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
r7a.32xlarge	40000.00	5000.00	160000.00	✓	88 (Dedicated limit)
r7a.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
r7a.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
R7g					
r7g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	Up to 27 (Shared limit)
r7g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	Up to 27 (Shared limit)
r7g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 27 (Shared limit)
r7g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 27 (Shared limit)
r7g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 27 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r7g.8xlarge	10000.00	1250.00	40000.00	✓	Up to 27 (Shared limit)
r7g.12xlarge	15000.00	1875.00	60000.00	✓	Up to 27 (Shared limit)
r7g.16xlarge	20000.00	2500.00	80000.00	✓	Up to 27 (Shared limit)
r7g.metal	20000.00	2500.00	80000.00	✓	Up to 31 (Shared limit)
R7gd					
r7gd.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	Up to 26 (Shared limit)
r7gd.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	Up to 26 (Shared limit)
r7gd.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 26 (Shared limit)
r7gd.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	Up to 26 (Shared limit)
r7gd.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
r7gd.8xlarge	10000.00	1250.00	40000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r7gd.12xlarge	15000.00	1875.00	60000.00	✓	Up to 25 (Shared limit)
r7gd.16xlarge	20000.00	2500.00	80000.00	✓	Up to 25 (Shared limit)
r7gd.metal	20000.00	2500.00	80000.00	✓	Up to 31 (Shared limit)
R7i					
r7i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
r7i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
r7i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
r7i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
r7i.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r7i.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
r7i.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
r7i.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
r7i.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
r7i.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
r7i.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
R7iz					
r7iz.large ¹	792.00 / 10000.00	99.00 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
r7iz.xlarge ¹	1584.00 / 10000.00	198.00 / 1250.00	6667.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r7iz.2xlarge ¹	3168.00 / 10000.00	396.00 / 1250.00	13333.00 / 40000.00	✓	32 (Dedicated limit)
r7iz.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
r7iz.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
r7iz.12xlarge	19000.00	2375.00	76000.00	✓	32 (Dedicated limit)
r7iz.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
r7iz.32xlarge	40000.00	5000.00	160000.00	✓	88 (Dedicated limit)
r7iz.meta l-16xl	20000.00	2500.00	80000.00	✓	39 (Dedicated limit)
r7iz.meta l-32xl	40000.00	5000.00	160000.00	✓	79 (Dedicated limit)

R8g

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r8g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
r8g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
r8g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
r8g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
r8g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
r8g.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
r8g.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
r8g.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r8g.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
r8g.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
r8g.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
r8g.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
R8gd					
r8gd.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
r8gd.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
r8gd.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
r8gd.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r8gd.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
r8gd.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
r8gd.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
r8gd.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
r8gd.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
r8gd.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
r8gd.meta-l-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
r8gd.meta-l-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)

R8i

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r8i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
r8i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
r8i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
r8i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
r8i.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
r8i.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
r8i.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
r8i.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r8i.32xlarge	40000.00	5000.00	160000.00	✓	88 (Dedicated limit)
r8i.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)
r8i.96xlarge	80000.00	10000.00	480000.00	✓	128 (Dedicated limit)
r8i.metal-48xl	60000.00	7500.00	240000.00	✓	64 (Dedicated limit)
r8i.metal-96xl	80000.00	10000.00	480000.00	✓	79 (Dedicated limit)
R8i-flex					
r8i-flex.large ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
r8i-flex.xlarge ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
r8i-flex.2xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r8i-flex.4xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
r8i-flex.8xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
r8i-flex.12xlarge ¹	7500.00 / 15000.00	937.50 / 1875.00	30000.00 / 60000.00	✓	32 (Dedicated limit)
r8i-flex.16xlarge ¹	10000.00 / 20000.00	1250.00 / 2500.00	40000.00 / 80000.00	✓	48 (Dedicated limit)
U-3tb1					
u-3tb1.56xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
U-6tb1					
u-6tb1.56xlarge	38000.00	4750.00	160000.00	✓	Up to 27 (Shared limit)
u-6tb1.112xlarge	38000.00	4750.00	160000.00	✓	Up to 27 (Shared limit)
u-6tb1.metal	38000.00	4750.00	160000.00	✓	Up to 19 (Shared limit)
U-9tb1					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
u-9tb1.11 2xlarge	38000.00	4750.00	160000.00	✓	Up to 27 (Shared limit)
u-9tb1.metal	38000.00	4750.00	160000.00	✓	Up to 19 (Shared limit)
U-12tb1					
u-12tb1.1 12xlarge	38000.00	4750.00	160000.00	✓	Up to 27 (Shared limit)
u-12tb1.metal	38000.00	4750.00	160000.00	✓	Up to 19 (Shared limit)
U-18tb1					
u-18tb1.1 12xlarge	38000.00	4750.00	160000.00	✓	Up to 27 (Shared limit)
u-18tb1.metal	38000.00	4750.00	160000.00	✓	Up to 19 (Shared limit)
U-24tb1					
u-24tb1.1 12xlarge	38000.00	4750.00	160000.00	✓	Up to 27 (Shared limit)
u-24tb1.metal	38000.00	4750.00	160000.00	✓	Up to 19 (Shared limit)
U7i-6tb					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
u7i-6tb.1 12xlarge	100000.00	12500.00	560000.00	✓	128 (Dedicated limit)

U7i-8tb

u7i-8tb.1 12xlarge	100000.00	12500.00	560000.00	✓	128 (Dedicated limit)
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U7i-12tb

u7i-12tb. 224xlarge	100000.00	12500.00	560000.00	✓	128 (Dedicated limit)
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U7in-16tb

u7in-16tb .224xlarge	100000.00	12500.00	560000.00	✓	128 (Dedicated limit)
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U7in-24tb

u7in-24tb .224xlarge	100000.00	12500.00	560000.00	✓	128 (Dedicated limit)
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U7in-32tb

u7in-32tb .224xlarge	100000.00	12500.00	560000.00	✓	128 (Dedicated limit)
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Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
U7inh-32tb					
u7inh-32tb.480xlarge	160000.00	20000.00	840000.00	✓	128 (Dedicated limit)
X1					
x1.16xlarge	7000.00	875.00	40000.00	✗	Up to 40 (Xen-based limit)
x1.32xlarge	14000.00	1750.00	80000.00	✗	Up to 40 (Xen-based limit)
X1e					
x1e.xlarge	500.00	62.50	3700.00	✗	Up to 40 (Xen-based limit)
x1e.2xlarge	1000.00	125.00	7400.00	✗	Up to 40 (Xen-based limit)
x1e.4xlarge	1750.00	218.75	10000.00	✗	Up to 40 (Xen-based limit)
x1e.8xlarge	3500.00	437.50	20000.00	✗	Up to 40 (Xen-based limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
x1e.16xlarge	7000.00	875.00	40000.00	x	Up to 40 (Xen-based limit)
x1e.32xlarge	14000.00	1750.00	80000.00	x	Up to 40 (Xen-based limit)
X2gd					
x2gd.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	Up to 26 (Shared limit)
x2gd.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	Up to 26 (Shared limit)
x2gd.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	Up to 26 (Shared limit)
x2gd.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	Up to 26 (Shared limit)
x2gd.4xlarge	4750.00	593.75	20000.00	✓	Up to 26 (Shared limit)
x2gd.8xlarge	9500.00	1187.50	40000.00	✓	Up to 26 (Shared limit)
x2gd.12xlarge	14250.00	1781.25	60000.00	✓	Up to 25 (Shared limit)
x2gd.16xlarge	19000.00	2375.00	80000.00	✓	Up to 25 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
x2gd.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
X2idn					
x2idn.16x large	40000.00	5000.00	173333.00	✓	Up to 26 (Shared limit)
x2idn.24x large	60000.00	7500.00	260000.00	✓	Up to 25 (Shared limit)
x2idn.32x large	80000.00	10000.00	260000.00	✓	Up to 25 (Shared limit)
x2idn.metal	80000.00	10000.00	260000.00	✓	Up to 31 (Shared limit)
X2iedn					
x2iedn.xlarge ¹	2500.00 / 20000.00	312.50 / 2500.00	8125.00 / 65000.00	✓	Up to 26 (Shared limit)
x2iedn.2x large ¹	5000.00 / 20000.00	625.00 / 2500.00	16250.00 / 65000.00	✓	Up to 26 (Shared limit)
x2iedn.4x large ¹	10000.00 / 20000.00	1250.00 / 2500.00	32500.00 / 65000.00	✓	Up to 26 (Shared limit)
x2iedn.8x large	20000.00	2500.00	65000.00	✓	Up to 26 (Shared limit)
x2iedn.16x large	40000.00	5000.00	130000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
x2iedn.24xlarge	60000.00	7500.00	195000.00	✓	Up to 25 (Shared limit)
x2iedn.32xlarge	80000.00	10000.00	260000.00	✓	Up to 25 (Shared limit)
x2iedn.metal	80000.00	10000.00	260000.00	✓	Up to 31 (Shared limit)

X2iezn

x2iezn.2xlarge	3170.00	396.25	13333.00	✓	Up to 27 (Shared limit)
x2iezn.4xlarge	4750.00	593.75	20000.00	✓	Up to 27 (Shared limit)
x2iezn.6xlarge	9500.00	1187.50	40000.00	✓	Up to 27 (Shared limit)
x2iezn.8xlarge	12000.00	1500.00	55000.00	✓	Up to 27 (Shared limit)
x2iezn.12xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)
x2iezn.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

X8g

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
x8g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
x8g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	32 (Dedicated limit)
x8g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	32 (Dedicated limit)
x8g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	32 (Dedicated limit)
x8g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
x8g.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
x8g.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
x8g.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
x8g.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
x8g.48xlarge	40000.00	5000.00	240000.00	✓	128 (Dedicated limit)
x8g.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
x8g.metal-48xl	40000.00	5000.00	240000.00	✓	79 (Dedicated limit)
z1d					
z1d.large ¹	800.00 / 3170.00	100.00 / 396.25	3333.00 / 13333.00	✓	Up to 26 (Shared limit)
z1d.xlarge ¹	1580.00 / 3170.00	197.50 / 396.25	6667.00 / 13333.00	✓	Up to 26 (Shared limit)
z1d.2xlarge	3170.00	396.25	13333.00	✓	Up to 26 (Shared limit)
z1d.3xlarge	4750.00	593.75	20000.00	✓	Up to 26 (Shared limit)
z1d.6xlarge	9500.00	1187.50	40000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
z1d.12xlarge	19000.00	2375.00	80000.00	✓	Up to 25 (Shared limit)
z1d.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

 **Note**

¹ These instances can support maximum performance for 30 minutes at least once every 24 hours, after which they revert to their baseline performance. Other instances can sustain the maximum performance indefinitely. If your workload requires sustained maximum performance for longer than 30 minutes, use one of these instances.

Instance store specifications

The following table shows the instance store volume configuration for supported instance types, along with the aggregated IOPS performance with 4,096 byte block size at queue depth saturation.

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
R5ad					
r5ad.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓
r5ad.xlarge	1 x 150 GB	NVMe SSD	59,000 / 29,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
r5ad.2xlarge	1 x 300 GB	NVMe SSD	117,000 / 57,000		✓
r5ad.4xlarge	2 x 300 GB	NVMe SSD	234,000 / 114,000		✓
r5ad.8xlarge	2 x 600 GB	NVMe SSD	466,666 / 233,334		✓
r5ad.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
r5ad.16xlarge	4 x 600 GB	NVMe SSD	933,332 / 466,668		✓
r5ad.24xlarge	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
R5d					
r5d.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓
r5d.xlarge	1 x 150 GB	NVMe SSD	59,000 / 29,000		✓
r5d.2xlarge	1 x 300 GB	NVMe SSD	117,000 / 57,000		✓
r5d.4xlarge	2 x 300 GB	NVMe SSD	234,000 / 114,000		✓
r5d.8xlarge	2 x 600 GB	NVMe SSD	466,666 / 233,334		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
r5d.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
r5d.16xlarge	4 x 600 GB	NVMe SSD	933,332 / 466,668		✓
r5d.24xlarge	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
r5d.metal	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
R5dn					
r5dn.large	1 x 75 GB	NVMe SSD	29,000 / 14,500		✓
r5dn.xlarge	1 x 150 GB	NVMe SSD	58,000 / 29,000		✓
r5dn.2xlarge	1 x 300 GB	NVMe SSD	116,000 / 58,000		✓
r5dn.4xlarge	2 x 300 GB	NVMe SSD	232,000 / 116,000		✓
r5dn.8xlarge	2 x 600 GB	NVMe SSD	464,000 / 232,000		✓
r5dn.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 350,000		✓
r5dn.16xlarge	4 x 600 GB	NVMe SSD	930,000 / 465,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
r5dn.24xlarge	4 x 900 GB	NVMe SSD	1,400,000 / 700,000		✓
r5dn.metal	4 x 900 GB	NVMe SSD	1,400,000 / 700,000		✓
R6gd					
r6gd.medium	1 x 59 GB	NVMe SSD	13,438 / 5,625		✓
r6gd.large	1 x 118 GB	NVMe SSD	26,875 / 11,250		✓
r6gd.xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓
r6gd.2xlarge	1 x 474 GB	NVMe SSD	107,500 / 45,000		✓
r6gd.4xlarge	1 x 950 GB	NVMe SSD	215,000 / 90,000		✓
r6gd.8xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓
r6gd.12xlarge	2 x 1425 GB	NVMe SSD	645,000 / 270,000		✓
r6gd.16xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
r6gd.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
R6idn					

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
r6idn.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
r6idn.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
r6idn.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
r6idn.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
r6idn.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
r6idn.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
r6idn.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
r6idn.24xlarge	4 x 1425 GB	NVMe SSD	1,609,996 / 805,000		✓
r6idn.32xlarge	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
r6idn.metal	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
R6id					
r6id.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
r6id.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
r6id.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
r6id.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
r6id.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
r6id.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
r6id.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
r6id.24xlarge	4 x 1425 GB	NVMe SSD	1,609,996 / 805,000		✓
r6id.32xlarge	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
r6id.metal	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
R7gd					
r7gd.medium	1 x 59 GB	NVMe SSD	16,771 / 8,385		✓
r7gd.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
r7gd.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
r7gd.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
r7gd.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
r7gd.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
r7gd.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
r7gd.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
r7gd.metal	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
R8gd					
r8gd.medium	1 x 59 GB	NVMe SSD	16,771 / 8,385		✓
r8gd.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
r8gd.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
r8gd.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
r8gd.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
r8gd.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
r8gd.12xlarge	3 x 950 GB	NVMe SSD	804,999 / 402,501		✓
r8gd.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
r8gd.24xlarge	3 x 1900 GB	NVMe SSD	1,609,998 / 805,002		✓
r8gd.48xlarge	6 x 1900 GB	NVMe SSD	3,219,996 / 1,610,004		✓
r8gd.metal-24xl	3 x 1900 GB	NVMe SSD	1,609,998 / 805,002		✓
r8gd.metal-48xl	6 x 1900 GB	NVMe SSD	3,219,996 / 1,610,004		✓
X1					
x1.16xlarge	1 x 1920 GB	SSD		✓	
x1.32xlarge	2 x 1920 GB	SSD		✓	
X1e					
x1e.xlarge	1 x 120 GB	SSD		✓	
x1e.2xlarge	1 x 240 GB	SSD		✓	

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
x1e.4xlarge	1 x 480 GB	SSD		✓	
x1e.8xlarge	1 x 960 GB	SSD		✓	
x1e.16xlarge	1 x 1920 GB	SSD		✓	
x1e.32xlarge	2 x 1920 GB	SSD		✓	
X2gd					
x2gd.medium	1 x 59 GB	NVMe SSD	13,438 / 5,625		✓
x2gd.large	1 x 118 GB	NVMe SSD	26,875 / 11,250		✓
x2gd.xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓
x2gd.2xlarge	1 x 475 GB	NVMe SSD	107,500 / 45,000		✓
x2gd.4xlarge	1 x 950 GB	NVMe SSD	215,000 / 90,000		✓
x2gd.8xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓
x2gd.12xlarge	2 x 1425 GB	NVMe SSD	645,000 / 270,000		✓
x2gd.16xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
x2gd.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
X2idn					
x2idn.16xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓
x2idn.24xlarge	2 x 1425 GB	NVMe SSD	645,000 / 270,000		✓
x2idn.32xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
x2idn.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
X2iedn					
x2iedn.xlarge	1 x 118 GB	NVMe SSD	26,875 / 11,250		✓
x2iedn.2xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓
x2iedn.4xlarge	1 x 475 GB	NVMe SSD	107,500 / 45,000		✓
x2iedn.8xlarge	1 x 950 GB	NVMe SSD	215,000 / 90,000		✓
x2iedn.16xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓
x2iedn.24xlarge	2 x 1425 GB	NVMe SSD	645,000 / 270,000		✓
x2iedn.32xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
x2iedn.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
z1d					
z1d.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓
z1d.xlarge	1 x 150 GB	NVMe SSD	59,000 / 29,000		✓
z1d.2xlarge	1 x 300 GB	NVMe SSD	117,000 / 57,000		✓
z1d.3xlarge	1 x 450 GB	NVMe SSD	175,000 / 75,000		✓
z1d.6xlarge	1 x 900 GB	NVMe SSD	350,000 / 170,000		✓
z1d.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
z1d.metal	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓

¹ Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see [Optimize disk performance for instance store volumes](#).

² For more information, see [Instance store volume TRIM support](#).

Security specifications

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
R5						
r5.large	✓	Instance store not supported	✗	✗	✓	✗
r5.xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5.2xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5.8xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5.12xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5.16xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5.24xlarge	✓	Instance store not	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
		supported				
r5.metal	✓	Instance store not supported	✗	✗	✗	✗
R5a						
r5a.large	✓	Instance store not supported	✗	✗	✓	✗
r5a.xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5a.2xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5a.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5a.8xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5a.12xlarge	✓	Instance store not supported	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5a.16xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5a.24xlarge	✓	Instance store not supported	✗	✗	✓	✓
R5ad						
r5ad.large	✓	✓	✗	✗	✓	✗
r5ad.xlarge	✓	✓	✗	✗	✓	✓
r5ad.2xlarge	✓	✓	✗	✗	✓	✓
r5ad.4xlarge	✓	✓	✗	✗	✓	✓
r5ad.8xlarge	✓	✓	✗	✗	✓	✓
r5ad.12xlarge	✓	✓	✗	✗	✓	✓
r5ad.16xlarge	✓	✓	✗	✗	✓	✓
r5ad.24xlarge	✓	✓	✗	✗	✓	✓
R5b						
r5b.large	✓	Instance store not supported	✗	✗	✓	✗
r5b.xlarge	✓	Instance store not supported	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5b.2xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5b.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5b.8xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5b.12xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5b.16xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5b.24xlarge	✓	Instance store not supported	✗	✗	✓	✓
r5b.metal	✓	Instance store not supported	✗	✗	✗	✗
R5d						
r5d.large	✓	✓	✗	✗	✓	✗
r5d.xlarge	✓	✓	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5d.2xlarge	✓	✓	✗	✗	✓	✓
r5d.4xlarge	✓	✓	✗	✗	✓	✓
r5d.8xlarge	✓	✓	✗	✗	✓	✓
r5d.12xlarge	✓	✓	✗	✗	✓	✓
r5d.16xlarge	✓	✓	✗	✗	✓	✓
r5d.24xlarge	✓	✓	✗	✗	✓	✓
r5d.metal	✓	✓	✗	✗	✗	✗
R5dn						
r5dn.large	✓	✓	✓	✗	✓	✗
r5dn.xlarge	✓	✓	✓	✗	✓	✓
r5dn.2xlarge	✓	✓	✓	✗	✓	✓
r5dn.4xlarge	✓	✓	✓	✗	✓	✓
r5dn.8xlarge	✓	✓	✓	✗	✓	✓
r5dn.12xlarge	✓	✓	✓	✗	✓	✓
r5dn.16xlarge	✓	✓	✓	✗	✓	✓
r5dn.24xlarge	✓	✓	✓	✗	✓	✓
r5dn.metal	✓	✓	✓	✗	✗	✗
R5n						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5n.large	✓	Instance store not supported	✓	✗	✓	✗
r5n.xlarge	✓	Instance store not supported	✓	✗	✓	✓
r5n.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
r5n.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
r5n.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
r5n.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r5n.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
r5n.24xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5n.metal	✓	Instance store not supported	✓	✗	✗	✗
R6a						
r6a.large	✓	Instance store not supported	✓	✓	✓	✗
r6a.xlarge	✓	Instance store not supported	✓	✓	✓	✓
r6a.2xlarge	✓	Instance store not supported	✓	✓	✓	✓
r6a.4xlarge	✓	Instance store not supported	✓	✓	✓	✓
r6a.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6a.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6a.16xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6a.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6a.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6a.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6a.metal	✓	Instance store not supported	✓	✗	✗	✗
R6g						
r6g.medium	✓	Instance store not supported	✗	✗	✓	✗
r6g.large	✓	Instance store not supported	✗	✗	✓	✓
r6g.xlarge	✓	Instance store not supported	✗	✗	✓	✓
r6g.2xlarge	✓	Instance store not supported	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6g.4xlarge	✓	Instance store not supported	✗	✗	✓	✓
r6g.8xlarge	✓	Instance store not supported	✗	✗	✓	✓
r6g.12xlarge	✓	Instance store not supported	✗	✗	✓	✓
r6g.16xlarge	✓	Instance store not supported	✗	✗	✓	✓
r6g.metal	✓	Instance store not supported	✗	✗	✗	✗
R6gd						
r6gd.medium	✓	✓	✗	✗	✓	✗
r6gd.large	✓	✓	✗	✗	✓	✓
r6gd.xlarge	✓	✓	✗	✗	✓	✓
r6gd.2xlarge	✓	✓	✗	✗	✓	✓
r6gd.4xlarge	✓	✓	✗	✗	✓	✓
r6gd.8xlarge	✓	✓	✗	✗	✓	✓
r6gd.12xlarge	✓	✓	✗	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6gd.16xlarge	✓	✓	✗	✗	✓	✓
r6gd.metal	✓	✓	✗	✗	✗	✗
R6i						
r6i.large	✓	Instance store not supported	✓	✗	✓	✗
r6i.xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.16xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6i.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.metal	✓	Instance store not supported	✓	✗	✗	✗
R6idn						
r6idn.large	✓	✓	✓	✗	✓	✗
r6idn.xlarge	✓	✓	✓	✗	✓	✓
r6idn.2xlarge	✓	✓	✓	✗	✓	✓
r6idn.4xlarge	✓	✓	✓	✗	✓	✓
r6idn.8xlarge	✓	✓	✓	✗	✓	✓
r6idn.12xlarge	✓	✓	✓	✗	✓	✓
r6idn.16xlarge	✓	✓	✓	✗	✓	✓
r6idn.24xlarge	✓	✓	✓	✗	✓	✓
r6idn.32xlarge	✓	✓	✓	✗	✓	✓
r6idn.metal	✓	✓	✓	✗	✗	✗
R6in						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6in.large	✓	Instance store not supported	✓	✗	✓	✗
r6in.xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6in.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6in.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6in.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6in.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6in.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6in.24xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6in.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6in.metal	✓	Instance store not supported	✓	✗	✗	✗
R6id						
r6id.large	✓	✓	✓	✗	✓	✗
r6id.xlarge	✓	✓	✓	✗	✓	✓
r6id.2xlarge	✓	✓	✓	✗	✓	✓
r6id.4xlarge	✓	✓	✓	✗	✓	✓
r6id.8xlarge	✓	✓	✓	✗	✓	✓
r6id.12xlarge	✓	✓	✓	✗	✓	✓
r6id.16xlarge	✓	✓	✓	✗	✓	✓
r6id.24xlarge	✓	✓	✓	✗	✓	✓
r6id.32xlarge	✓	✓	✓	✗	✓	✓
r6id.metal	✓	✓	✓	✗	✗	✗
R7a						
r7a.medium	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7a.large	✓	Instance store not supported	✓	✗	✓	✗
r7a.xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7a.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7a.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7a.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7a.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7a.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7a.24xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7a.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7a.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7a.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
R7g						
r7g.medium	✓	Instance store not supported	✓	✗	✓	✗
r7g.large	✓	Instance store not supported	✓	✗	✓	✓
r7g.xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7g.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7g.4xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7g.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7g.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7g.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7g.metal	✓	Instance store not supported	✓	✗	✗	✗
R7gd						
r7gd.medium	✓	✓	✓	✗	✓	✗
r7gd.large	✓	✓	✓	✗	✓	✓
r7gd.xlarge	✓	✓	✓	✗	✓	✓
r7gd.2xlarge	✓	✓	✓	✗	✓	✓
r7gd.4xlarge	✓	✓	✓	✗	✓	✓
r7gd.8xlarge	✓	✓	✓	✗	✓	✓
r7gd.12xlarge	✓	✓	✓	✗	✓	✓
r7gd.16xlarge	✓	✓	✓	✗	✓	✓
r7gd.metal	✓	✓	✓	✗	✗	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
R7i						
r7i.large	✓	Instance store not supported	✓	✗	✓	✗
r7i.xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7i.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7i.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7i.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7i.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7i.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7i.24xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7i.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7i.metal-24xl	✓	Instance store not supported	✓	✗	✗	✗
r7i.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
R7iz						
r7iz.large	✓	Instance store not supported	✓	✗	✓	✗
r7iz.xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7iz.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7iz.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7iz.8xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7iz.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7iz.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7iz.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
r7iz.metal-16xl	✓	Instance store not supported	✓	✗	✗	✗
r7iz.metal-32xl	✓	Instance store not supported	✓	✗	✗	✗
R8g						
r8g.medium	✓	Instance store not supported	✓	✗	✓	✗
r8g.large	✓	Instance store not supported	✓	✗	✓	✓
r8g.xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r8g.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
r8g.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
r8g.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
r8g.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
r8g.16xlarge	✓	Instance store not supported	✓	✗	✓	✓
r8g.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
r8g.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
r8g.metal-24xl	✓	Instance store not supported	✓	✗	✗	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r8g.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
R8gd						
r8gd.medium	✓	✓	✓	✗	✓	✗
r8gd.large	✓	✓	✓	✗	✓	✓
r8gd.xlarge	✓	✓	✓	✗	✓	✓
r8gd.2xlarge	✓	✓	✓	✗	✓	✓
r8gd.4xlarge	✓	✓	✓	✗	✓	✓
r8gd.8xlarge	✓	✓	✓	✗	✓	✓
r8gd.12xlarge	✓	✓	✓	✗	✓	✓
r8gd.16xlarge	✓	✓	✓	✗	✓	✓
r8gd.24xlarge	✓	✓	✓	✗	✓	✓
r8gd.48xlarge	✓	✓	✓	✗	✓	✓
r8gd.metal-24xl	✓	✓	✓	✗	✗	✗
r8gd.metal-48xl	✓	✓	✓	✗	✗	✗
R8i						
r8i.large	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r8i.xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.2xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.4xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.8xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.12xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.16xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.24xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.32xlarge	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r8i.48xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.96xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
r8i.metal-96xl	✓	Instance store not supported	✓	✗	✗	✗
R8i-flex						
r8i-flex.large	✓	Instance store not supported	✓	✗	✓	✗
r8i-flex.xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i-flex.2xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i-flex.4xlarge	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r8i-flex.8xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i-flex.12xlarge	✓	Instance store not supported	✓	✗	✓	✗
r8i-flex.16xlarge	✓	Instance store not supported	✓	✗	✓	✗
U-3tb1						
u-3tb1.56xlarge	✓	Instance store not supported	✓	✗	✗	✗
U-6tb1						
u-6tb1.56xlarge	✓	Instance store not supported	✓	✗	✗	✗
u-6tb1.112xlarge	✓	Instance store not supported	✓	✗	✗	✗
u-6tb1.metal	✓	Instance store not supported	✓	✗	✗	✗
U-9tb1						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
u-9tb1.112xlarge	✓	Instance store not supported	✓	x	x	x
u-9tb1.metal	✓	Instance store not supported	✓	x	x	x
U-12tb1						
u-12tb1.112xlarge	✓	Instance store not supported	✓	x	x	x
u-12tb1.metal	✓	Instance store not supported	✓	x	x	x
U-18tb1						
u-18tb1.112xlarge	✓	Instance store not supported	✓	x	x	x
u-18tb1.metal	✓	Instance store not supported	✓	x	x	x
U-24tb1						
u-24tb1.112xlarge	✓	Instance store not supported	✓	x	x	x

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
u-24tb1.metal	✓	Instance store not supported	✓	✗	✗	✗
U7i-6tb						
u7i-6tb.112xlarge	✓	Instance store not supported	✓	✗	✓	✗
U7i-8tb						
u7i-8tb.112xlarge	✓	Instance store not supported	✓	✗	✓	✗
U7i-12tb						
u7i-12tb.224xlarge	✓	Instance store not supported	✓	✗	✓	✗
U7in-16tb						
u7in-16tb.224xlarge	✓	Instance store not supported	✓	✗	✓	✗
U7in-24tb						
u7in-24tb.224xlarge	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
U7in-32tb						
u7in-32tb.224xlarge	✓	Instance store not supported	✓	✗	✓	✗
U7inh-32tb						
u7inh-32tb.480xlarge	✓	Instance store not supported	✓	✗	✗	✗
X1						
x1.16xlarge	✓	✗	✗	✗	✗	✗
x1.32xlarge	✓	✗	✗	✗	✗	✗
X1e						
x1e.xlarge	✓	✗	✗	✗	✗	✗
x1e.2xlarge	✓	✗	✗	✗	✗	✗
x1e.4xlarge	✓	✗	✗	✗	✗	✗
x1e.8xlarge	✓	✗	✗	✗	✗	✗
x1e.16xlarge	✓	✗	✗	✗	✗	✗
x1e.32xlarge	✓	✗	✗	✗	✗	✗
X2gd						
x2gd.medium	✓	✓	✗	✗	✗	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
x2gd.large	✓	✓	✗	✗	✗	✓
x2gd.xlarge	✓	✓	✗	✗	✗	✓
x2gd.2xlarge	✓	✓	✗	✗	✗	✓
x2gd.4xlarge	✓	✓	✗	✗	✗	✓
x2gd.8xlarge	✓	✓	✗	✗	✗	✓
x2gd.12xlarge	✓	✓	✗	✗	✗	✓
x2gd.16xlarge	✓	✓	✗	✗	✗	✓
x2gd.metal	✓	✓	✗	✗	✗	✗
X2idn						
x2idn.16xlarge	✓	✓	✓	✗	✓	✓
x2idn.24xlarge	✓	✓	✓	✗	✓	✓
x2idn.32xlarge	✓	✓	✓	✗	✓	✓
x2idn.metal	✓	✓	✓	✗	✗	✗
X2iedn						
x2iedn.xlarge	✓	✓	✓	✗	✓	✓
x2iedn.2xlarge	✓	✓	✓	✗	✓	✓
x2iedn.4xlarge	✓	✓	✓	✗	✓	✓
x2iedn.8xlarge	✓	✓	✓	✗	✓	✓
x2iedn.16xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
x2iedn.24xlarge	✓	✓	✓	✗	✓	✓
x2iedn.32xlarge	✓	✓	✓	✗	✓	✓
x2iedn.metal	✓	✓	✓	✗	✗	✗
X2iezn						
x2iezn.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
x2iezn.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
x2iezn.6xlarge	✓	Instance store not supported	✓	✗	✓	✓
x2iezn.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
x2iezn.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
x2iezn.metal	✓	Instance store not supported	✓	✗	✗	✗
X8g						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
x8g.medium	✓	Instance store not supported	✓	✗	✓	✗
x8g.large	✓	Instance store not supported	✓	✗	✓	✓
x8g.xlarge	✓	Instance store not supported	✓	✗	✓	✓
x8g.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
x8g.4xlarge	✓	Instance store not supported	✓	✗	✓	✓
x8g.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
x8g.12xlarge	✓	Instance store not supported	✓	✗	✓	✓
x8g.16xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
x8g.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
x8g.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
x8g.metal-24xl	✓	Instance store not supported	✓	✗	✗	✗
x8g.metal-48xl	✓	Instance store not supported	✓	✗	✗	✗
z1d						
z1d.large	✓	✓	✗	✗	✓	✗
z1d.xlarge	✓	✓	✗	✗	✓	✓
z1d.2xlarge	✓	✓	✗	✗	✓	✓
z1d.3xlarge	✓	✓	✗	✗	✓	✓
z1d.6xlarge	✓	✓	✗	✗	✓	✓
z1d.12xlarge	✓	✓	✗	✗	✓	✓
z1d.metal	✓	✓	✗	✗	✗	✗

Specifications for Amazon EC2 storage optimized instances

Storage optimized instances are designed for workloads that require high, sequential read and write access to very large data sets on local storage. They are optimized to deliver tens of thousands of low-latency, random I/O operations per second (IOPS) to applications.

For information on previous generation instance types of this category, such as I2 instances, see [Specifications for Amazon EC2 previous generation instances](#).

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- [Instance families and instance types](#)
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Pricing

For pricing information, see [Amazon EC2 On-Demand Pricing](#).

Instance families and instance types

Instance family	Available instance types
D2	d2.xlarge d2.2xlarge d2.4xlarge d2.8xlarge
D3	d3.xlarge d3.2xlarge d3.4xlarge d3.8xlarge
D3en	d3en.xlarge d3en.2xlarge d3en.4xlarge d3en.6xlarge d3en.8xlarge d3en.12xlarge
H1	h1.2xlarge h1.4xlarge h1.8xlarge h1.16xlarge

Instance family	Available instance types
I3	i3.large i3.xlarge i3.2xlarge i3.4xlarge i3.8xlarge i3.16xlarge i3.metal
I3en	i3en.large i3en.xlarge i3en.2xlarge i3en.3xlarge i3en.6xlarge i3en.12xlarge i3en.24xlarge i3en.metal
I4g	i4g.large i4g.xlarge i4g.2xlarge i4g.4xlarge i4g.8xlarge i4g.16xlarge
I4i	i4i.large i4i.xlarge i4i.2xlarge i4i.4xlarge i4i.8xlarge i4i.12xlarge i4i.16xlarge i4i.24xlarge i4i.32xlarge i4i.metal
I7i	i7i.large i7i.xlarge i7i.2xlarge i7i.4xlarge i7i.8xlarge i7i.12xlarge i7i.16xlarge i7i.24xlarge i7i.48xlarge i7i.metal-24xl i7i.metal-48xl
I7ie	i7ie.large i7ie.xlarge i7ie.2xlarge i7ie.3xlarge i7ie.6xlarge i7ie.12xlarge i7ie.18xlarge i7ie.24xlarge i7ie.48xlarge i7ie.metal-24xl i7ie.metal-48xl
I8g	i8g.large i8g.xlarge i8g.2xlarge i8g.4xlarge i8g.8xlarge i8g.12xlarge i8g.16xlarge i8g.24xlarge i8g.48xlarge i8g.metal-24xl
I8ge	i8ge.large i8ge.xlarge i8ge.2xlarge i8ge.3xlarge i8ge.6xlarge i8ge.12xlarge i8ge.18xlarge i8ge.24xlarge i8ge.48xlarge i8ge.metal-24xl i8ge.metal-48xl
Im4gn	im4gn.large im4gn.xlarge im4gn.2xlarge im4gn.4xlarge im4gn.8xlarge im4gn.16xlarge
Is4gen	is4gen.medium is4gen.large is4gen.xlarge is4gen.2xlarge is4gen.4xlarge is4gen.8xlarge

Instance family summary

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
D2	Xen	Intel (x86_64)	✗	✓	✓	✗	Windows Linux
D3	Nitro v3	Intel (x86_64)	✗	✗	✓	✗	Windows Linux
D3en	Nitro v3	Intel (x86_64)	✗	✗	✓	✗	Windows Linux
H1	Xen	Intel (x86_64)	✗	✓	✓	✗	Windows Linux
I3	Xen *	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
I3en	Nitro v3	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
I4g	Nitro v4	AWS Graviton (arm64)	✗	✓	✓	✓	Linux
I4i	Nitro v4	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
I7i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
I7ie	Nitro v5	Intel (x86_64)	✓	✓	✓	✓	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
I8g	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
I8ge	Nitro v6	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
Im4gn	Nitro v4	AWS Graviton (arm64)	✗	✓	✓	✓	Linux
Is4gen	Nitro v4	AWS Graviton (arm64)	✗	✗	✓	✓	Linux

 **Note**

* i3.metal instances are built on the AWS Nitro System.

Performance specifications

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
D2							
d2.xlarge	30.50	Intel Xeon E52676v3	4	2	2	✗	✗

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
d2.2xlarge	61.00	Intel Xeon E52676v3	8	4	2	x	x
d2.4xlarge	122.00	Intel Xeon E52676v3	16	8	2	x	x
d2.8xlarge	244.00	Intel Xeon E52676v3	36	18	2	x	x
D3							
d3.xlarge	32.00	Intel Xeon Platinum 8259	4	2	2	x	x
d3.2xlarge	64.00	Intel Xeon Platinum 8259	8	4	2	x	x
d3.4xlarge	128.00	Intel Xeon Platinum 8259	16	8	2	x	x
d3.8xlarge	256.00	Intel Xeon Platinum 8259	32	16	2	x	x
D3en							
d3en.xlarge	16.00	Intel Xeon Platinum 8259	4	2	2	x	x
d3en.2xlarge	32.00	Intel Xeon Platinum 8259	8	4	2	x	x
d3en.4xlarge	64.00	Intel Xeon Platinum 8259	16	8	2	x	x
d3en.6xlarge	96.00	Intel Xeon Platinum 8259	24	12	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
d3en.8xlarge	128.00	Intel Xeon Platinum 8259	32	16	2	x	x
d3en.12xlarge	192.00	Intel Xeon Platinum 8259	48	24	2	x	x
H1							
h1.2xlarge	32.00	Intel Broadwell E5-2686v4	8	4	2	x	x
h1.4xlarge	64.00	Intel Broadwell E5-2686v4	16	8	2	x	x
h1.8xlarge	128.00	Intel Broadwell E5-2686v4	32	16	2	x	x
h1.16xlarge	256.00	Intel Broadwell E5-2686v4	64	32	2	x	x
I3							
i3.large	15.25	Intel Broadwell E5-2686v4	2	1	2	x	x
i3.xlarge	30.50	Intel Broadwell E5-2686v4	4	2	2	x	x
i3.2xlarge	61.00	Intel Broadwell E5-2686v4	8	4	2	x	x
i3.4xlarge	122.00	Intel Broadwell E5-2686v4	16	8	2	x	x
i3.8xlarge	244.00	Intel Broadwell E5-2686v4	32	16	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
i3.16xlarge	488.00	Intel Broadwell E5-2686v4	64	32	2	x	x
i3.metal	512.00	Intel Broadwell E5-2686v4	72	36	2	x	x
I3en							
i3en.large	16.00	Intel Xeon Platinum 8175	2	1	2	x	x
i3en.xlarge	32.00	Intel Xeon Platinum 8175	4	2	2	x	x
i3en.2xlarge	64.00	Intel Xeon Platinum 8175	8	4	2	x	x
i3en.3xlarge	96.00	Intel Xeon Platinum 8175	12	6	2	x	x
i3en.6xlarge	192.00	Intel Xeon Platinum 8175	24	12	2	x	x
i3en.12xlarge	384.00	Intel Xeon Platinum 8175	48	24	2	x	x
i3en.24xlarge	768.00	Intel Xeon Platinum 8175	96	48	2	x	x
i3en.metal	768.00	Intel Xeon Platinum 8175	96	48	2	x	x
I4g							
i4g.large	16.00	AWS Graviton2 Processor	2	2	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
i4g.xlarge	32.00	AWS Graviton2 Processor	4	4	1	x	x
i4g.2xlarge	64.00	AWS Graviton2 Processor	8	8	1	x	x
i4g.4xlarge	128.00	AWS Graviton2 Processor	16	16	1	x	x
i4g.8xlarge	256.00	AWS Graviton2 Processor	32	32	1	x	x
i4g.16xlarge	512.00	AWS Graviton2 Processor	64	64	1	x	x
i4i							
i4i.large	16.00	Intel Xeon Ice Lake	2	1	2	x	x
i4i.xlarge	32.00	Intel Xeon Ice Lake	4	2	2	x	x
i4i.2xlarge	64.00	Intel Xeon Ice Lake	8	4	2	x	x
i4i.4xlarge	128.00	Intel Xeon Ice Lake	16	8	2	x	x
i4i.8xlarge	256.00	Intel Xeon Ice Lake	32	16	2	x	x
i4i.12xlarge	384.00	Intel Xeon Ice Lake	48	24	2	x	x
i4i.16xlarge	512.00	Intel Xeon Ice Lake	64	32	2	x	x
i4i.24xlarge	768.00	Intel Xeon Ice Lake	96	48	2	x	x
i4i.32xlarge	1024.00	Intel Xeon Ice Lake	128	64	2	x	x
i4i.metal	1024.00	Intel Xeon Ice Lake	128	64	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
I7i							
i7i.large	16.00	Intel Emerald Rapids	2	1	2	x	x
i7i.xlarge	32.00	Intel Emerald Rapids	4	2	2	x	x
i7i.2xlarge	64.00	Intel Emerald Rapids	8	4	2	x	x
i7i.4xlarge	128.00	Intel Emerald Rapids	16	8	2	x	x
i7i.8xlarge	256.00	Intel Emerald Rapids	32	16	2	x	x
i7i.12xlarge	384.00	Intel Emerald Rapids	48	24	2	x	x
i7i.16xlarge	512.00	Intel Emerald Rapids	64	32	2	x	x
i7i.24xlarge	768.00	Intel Emerald Rapids	96	48	2	x	x
i7i.48xlarge	1536.00	Intel Emerald Rapids	192	96	2	x	x
i7i.metal-24xl	768.00	Intel Emerald Rapids	96	48	2	x	x
i7i.metal-48xl	1536.00	Intel Emerald Rapids	192	96	2	x	x
I7ie							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
i7ie.large	16.00	Intel Emerald Rapids	2	1	2	X	X
i7ie.xlarge	32.00	Intel Emerald Rapids	4	2	2	X	X
i7ie.2xlarge	64.00	Intel Emerald Rapids	8	4	2	X	X
i7ie.3xlarge	96.00	Intel Emerald Rapids	12	6	2	X	X
i7ie.6xlarge	192.00	Intel Emerald Rapids	24	12	2	X	X
i7ie.12xlarge	384.00	Intel Emerald Rapids	48	24	2	X	X
i7ie.18xlarge	576.00	Intel Emerald Rapids	72	36	2	X	X
i7ie.24xlarge	768.00	Intel Emerald Rapids	96	48	2	X	X
i7ie.48xlarge	1536.00	Intel Emerald Rapids	192	96	2	X	X
i7ie.meta-l-24xl	768.00	Intel Emerald Rapids	96	48	2	X	X
i7ie.meta-l-48xl	1536.00	Intel Emerald Rapids	192	96	2	X	X
I8g							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
i8g.large	16.00	AWS Graviton4 Processor	2	2	1	x	x
i8g.xlarge	32.00	AWS Graviton4 Processor	4	4	1	x	x
i8g.2xlarge	64.00	AWS Graviton4 Processor	8	8	1	x	x
i8g.4xlarge	128.00	AWS Graviton4 Processor	16	16	1	x	x
i8g.8xlarge	256.00	AWS Graviton4 Processor	32	32	1	x	x
i8g.12xlarge	384.00	AWS Graviton4 Processor	48	48	1	x	x
i8g.16xlarge	512.00	AWS Graviton4 Processor	64	64	1	x	x
i8g.24xlarge	768.00	AWS Graviton4 Processor	96	96	1	x	x
i8g.48xlarge	1536.00	AWS Graviton4 Processor	192	192	1	x	x
i8g.metal-24xl	768.00	AWS Graviton4 Processor	96	96	1	x	x
I8ge							
i8ge.large	16.00	AWS Graviton4 Processor	2	2	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
i8ge.xlarge	32.00	AWS Graviton4 Processor	4	4	1	x	x
i8ge.2xlarge	64.00	AWS Graviton4 Processor	8	8	1	x	x
i8ge.3xlarge	96.00	AWS Graviton4 Processor	12	12	1	x	x
i8ge.6xlarge	192.00	AWS Graviton4 Processor	24	24	1	x	x
i8ge.12xlarge	384.00	AWS Graviton4 Processor	48	48	1	x	x
i8ge.18xlarge	576.00	AWS Graviton4 Processor	72	72	1	x	x
i8ge.24xlarge	768.00	AWS Graviton4 Processor	96	96	1	x	x
i8ge.48xlarge	1536.00	AWS Graviton4 Processor	192	192	1	x	x
i8ge.meta l-24xl	768.00	AWS Graviton4 Processor	96	96	1	x	x
i8ge.meta l-48xl	1536.00	AWS Graviton4 Processor	192	192	1	x	x
Im4gn							
im4gn.large	8.00	AWS Graviton2 Processor	2	2	1	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
im4gn.xlarge	16.00	AWS Graviton2 Processor	4	4	1	x	x
im4gn.2xlarge	32.00	AWS Graviton2 Processor	8	8	1	x	x
im4gn.4xlarge	64.00	AWS Graviton2 Processor	16	16	1	x	x
im4gn.8xlarge	128.00	AWS Graviton2 Processor	32	32	1	x	x
im4gn.16xlarge	256.00	AWS Graviton2 Processor	64	64	1	x	x
Is4gen							
is4gen.medium	6.00	AWS Graviton2 Processor	1	1	1	x	x
is4gen.large	12.00	AWS Graviton2 Processor	2	2	1	x	x
is4gen.xlarge	24.00	AWS Graviton2 Processor	4	4	1	x	x
is4gen.2xlarge	48.00	AWS Graviton2 Processor	8	8	1	x	x
is4gen.4xlarge	96.00	AWS Graviton2 Processor	16	16	1	x	x
is4gen.8xlarge	192.00	AWS Graviton2 Processor	32	32	1	x	x

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
D2								
d2.xlarge	Moderate	x	x ²	x	1	4	15	✓
d2.2xlarge	High	x	x ²	x	1	4	15	✓
d2.4xlarge	High	x	x ²	x	1	8	30	✓
d2.8xlarge	10 Gigabit	x	x ²	x	1	8	30	✓
D3								
d3.xlarge ¹	3.0 / 15.0	x	✓	x	1	4	3	✓
d3.2xlarge ¹	6.0 / 15.0	x	✓	x	1	4	5	✓
d3.4xlarge ¹	12.5 / 15.0	x	✓	x	1	4	10	✓
d3.8xlarge	25 Gigabit	x	✓	x	1	3	20	✓
D3en								
d3en.xlarge ¹	6.0 / 25.0	x	✓	x	1	4	3	✓
d3en.2xlarge ¹	12.5 / 25.0	x	✓	x	1	4	5	✓
d3en.4xlarge	25 Gigabit	x	✓	x	1	4	10	✓
d3en.6xlarge	40 Gigabit	x	✓	x	1	4	15	✓
d3en.8xlarge	50 Gigabit	x	✓	x	1	4	20	✓
d3en.12xlarge	75 Gigabit	x	✓	x	1	3	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
H1								
h1.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
h1.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
h1.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
h1.16xlarge	25 Gigabit	x	✓	x	1	8	50	✓
I3								
i3.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
i3.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
i3.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
i3.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
i3.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
i3.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
i3.metal	25 Gigabit	x	✓	x	1	15	50	✓
I3en								
i3en.large ¹	2.1 / 25.0	x	✓	x	1	3	10	✓
i3en.xlarge ¹	4.2 / 25.0	x	✓	x	1	4	15	✓
i3en.2xlarge ¹	8.4 / 25.0	x	✓	x	1	4	15	✓
i3en.3xlarge ¹	12.5 / 25.0	x	✓	x	1	4	15	✓
i3en.6xlarge	25 Gigabit	x	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
i3en.12xlarge	50 Gigabit	✓	✓	✗	1	8	30	✓
i3en.24xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
i3en.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
I4g								
i4g.large ¹	0.781 / 10.0	✗	✓	✗	1	3	10	✓
i4g.xlarge ¹	1.875 / 10.0	✗	✓	✗	1	4	15	✓
i4g.2xlarge ¹	4.687 / 12.0	✗	✓	✗	1	4	15	✓
i4g.4xlarge ¹	9.375 / 25.0	✗	✓	✓	1	8	30	✓
i4g.8xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
i4g.16xlarge	37.5 Gigabit	✓	✓	✓	1	15	50	✓
I4i								
i4i.large ¹	0.781 / 10.0	✗	✓	✗	1	3	10	✓
i4i.xlarge ¹	1.875 / 10.0	✗	✓	✗	1	4	15	✓
i4i.2xlarge ¹	4.687 / 12.0	✗	✓	✗	1	4	15	✓
i4i.4xlarge ¹	9.375 / 25.0	✗	✓	✗	1	8	30	✓
i4i.8xlarge	18.75 Gigabit	✗	✓	✓	1	8	30	✓
i4i.12xlarge	28.12 Gigabit	✗	✓	✓	1	8	30	✓
i4i.16xlarge	37.5 Gigabit	✗	✓	✓	1	15	50	✓
i4i.24xlarge	56.25 Gigabit	✗	✓	✓	1	15	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
i4i.32xlarge	75 Gigabit	✓	✓	✓	1	15	50	✓
i4i.metal	75 Gigabit	✓	✓	✓	1	15	50	✓
I7i								
i7i.large ¹	1.171 / 10.0	✗	✓	✗	1	3	10	✓
i7i.xlarge ¹	2.343 / 10.0	✗	✓	✗	1	4	15	✓
i7i.2xlarge ¹	4.687 / 12.0	✗	✓	✗	1	4	15	✓
i7i.4xlarge ¹	9.375 / 25.0	✗	✓	✗	1	8	30	✓
i7i.8xlarge ¹	12.5 / 25.0	✗	✓	✗	1	8	30	✓
i7i.12xlarge ¹	14.063 / 28.125	✗	✓	✓	1	8	30	✓
i7i.16xlarge ¹	18.75 / 37.5	✗	✓	✓	1	15	50	✓
i7i.24xlarge ¹	28.125 / 56.25	✓	✓	✓	1	15	50	✓
i7i.48xlarge ¹	56.25 / 100.0	✓	✓	✓	1	15	50	✓
i7i.metal-24xl ¹	28.125 / 56.25	✗	✓	✓	1	15	50	✓
i7i.metal-48xl ¹	56.25 / 100.0	✓	✓	✓	1	15	50	✓
I7ie								
i7ie.large ¹	2.083 / 25.0	✗	✓	✗	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
i7ie.xlarge ¹	4.166 / 25.0	✗	✓	✗	1	4	15	✓
i7ie.2xlarge ¹	8.333 / 25.0	✗	✓	✗	1	4	15	✓
i7ie.3xlarge ¹	12.5 / 25.0	✗	✓	✗	1	4	15	✓
i7ie.6xlarge ¹	12.5 / 25.0	✗	✓	✗	1	8	30	✓
i7ie.12xlarge ¹	25.0 / 50.0	✗	✓	✓	1	8	50	✓
i7ie.18xlarge ¹	37.5 / 75.0	✗	✓	✓	1	15	50	✓
i7ie.24xlarge ¹	50.0 / 100.0	✗	✓	✓	1	15	50	✓
i7ie.48xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
i7ie.meta l-24xl ¹	50.0 / 100.0	✗	✓	✓	1	15	50	✓
i7ie.meta l-48xl	100 Gigabit	✓	✓	✓	1	15	50	✓
I8g								
i8g.large ¹	1.172 / 10.0	✗	✓	✗	1	3	10	✓
i8g.xlarge ¹	2.344 / 10.0	✗	✓	✗	1	4	15	✓
i8g.2xlarge ¹	4.688 / 12.0	✗	✓	✗	1	4	15	✓
i8g.4xlarge ¹	9.375 / 25.0	✗	✓	✗	1	8	30	✓
i8g.8xlarge ¹	12.5 / 25.0	✗	✓	✗	1	8	30	✓
i8g.12xlarge ¹	14.063 / 28.125	✗	✓	✓	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
i8g.16xlarge ¹	18.75 / 37.5	✗	✓	✓	1	15	50	✓
i8g.24xlarge ¹	28.125 / 56.25	✗	✓	✓	1	15	50	✓
i8g.48xlarge ¹	56.25 / 100.0	✓	✓	✓	1	15	50	✓
i8g.metal-24xl ¹	28.125 / 56.25	✗	✓	✓	1	15	50	✓
I8ge								
i8ge.large ¹	2.1 / 25.0	✗	✓	✗	1	3	10	✓
i8ge.xlarge ¹	4.2 / 25.0	✗	✓	✗	1	4	15	✓
i8ge.2xlarge ¹	8.4 / 25.0	✗	✓	✗	1	4	15	✓
i8ge.3xlarge ¹	12.5 / 25.0	✗	✓	✗	1	6	30	✓
i8ge.6xlarge	37.5 Gigabit	✗	✓	✗	1	10	30	✓
i8ge.12xlarge	75 Gigabit	✗	✓	✓	1	12	30	✓
i8ge.18xlarge	112.5 Gigabit	✗	✓	✓	1	16	50	✓
i8ge.24xlarge	150 Gigabit	✗	✓	✓	1	16	50	✓
i8ge.48xlarge	300 Gigabit	✓	✓	✓	1	24	50	✓
i8ge.meta-l-24xl	150 Gigabit	✗	✓	✓	1	16	50	✓
i8ge.meta-l-48xl	300 Gigabit	✓	✓	✓	1	24	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
Im4gn								
im4gn.large ¹	3.125 / 25.0	✗	✓	✗	1	3	10	✓
im4gn.xlarge ¹	6.25 / 25.0	✗	✓	✗	1	4	15	✓
im4gn.2xlarge ¹	12.5 / 25.0	✗	✓	✗	1	4	15	✓
im4gn.4xlarge	25 Gigabit	✗	✓	✓	1	8	30	✓
im4gn.8xlarge	50 Gigabit	✗	✓	✓	1	8	30	✓
im4gn.16xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
Is4gen								
is4gen.medium ¹	1.562 / 25.0	✗	✓	✗	1	2	4	✓
is4gen.large ¹	3.125 / 25.0	✗	✓	✗	1	3	10	✓
is4gen.xlarge ¹	6.25 / 25.0	✗	✓	✗	1	4	15	✓
is4gen.2xlarge ¹	12.5 / 25.0	✗	✓	✗	1	4	15	✓
is4gen.4xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
is4gen.8xlarge	50 Gigabit	✗	✓	✗	1	8	30	✓

Note

¹ These instances have a baseline bandwidth and can use a network I/O credit mechanism to burst beyond their baseline bandwidth on a best effort basis. Other instances types can sustain their maximum performance indefinitely. For more information, see [instance network bandwidth](#).

² These instances support enhanced networking using the Intel 82599 VF interface.

Amazon EBS specifications

The following table indicates which instance types are Amazon EBS optimized by default and which optionally support it. It also describes their EBS-optimized performance, including dedicated bandwidth to Amazon EBS, the typical maximum aggregate throughput that can be achieved on that dedicated connection with a streaming read workload and 128 KiB I/O size, and the maximum IOPS the instance type can support when using a 16 KiB I/O size. Instance types not listed do not support Amazon EBS optimization.

Important

An instance's EBS performance is bounded by the instance's performance limits, or the aggregated performance of its attached volumes, whichever is smaller. To achieve maximum EBS performance, an instance must have attached volumes that provide a combined performance equal to or greater than the maximum instance performance. For example, to achieve 80,000 IOPS for `r6i.16xlarge`, the instance must have at least 5 gp3 volumes provisioned with 16,000 IOPS each (5 volumes x 16,000 IOPS = 80,000 IOPS).

We recommend that you choose an EBS-optimized instance type that provides more dedicated Amazon EBS throughput than your application needs; otherwise, the connection between Amazon EBS and Amazon EC2 can become a performance bottleneck.

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
D2					
d2.xlarge	750.00	93.75	6000.00	x	Up to 40 (Xen-based limit)
d2.2xlarge	1000.00	125.00	8000.00	x	Up to 40 (Xen-based limit)
d2.4xlarge	2000.00	250.00	16000.00	x	Up to 40 (Xen-based limit)
d2.8xlarge	4000.00	500.00	32000.00	x	Up to 40 (Xen-based limit)
D3					
d3.xlarge ¹	850.00 / 2800.00	106.25 / 350.00	5000.00 / 15000.00	✓	Up to 24 (Shared limit)
d3.2xlarge ¹	1700.00 / 2800.00	212.50 / 350.00	10000.00 / 15000.00	✓	Up to 21 (Shared limit)
d3.4xlarge	2800.00	350.00	15000.00	✓	Up to 15 (Shared limit)
d3.8xlarge	5000.00	625.00	30000.00	✓	Up to 3 (Shared limit)
D3en					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
d3en.xlarge ¹	850.00 / 2800.00	106.25 / 350.00	5000.00 / 15000.00	✓	Up to 25 (Shared limit)
d3en.2xlarge ¹	1700.00 / 2800.00	212.50 / 350.00	10000.00 / 15000.00	✓	Up to 23 (Shared limit)
d3en.4xlarge	2800.00	350.00	15000.00	✓	Up to 19 (Shared limit)
d3en.6xlarge	4000.00	500.00	25000.00	✓	Up to 15 (Shared limit)
d3en.8xlarge	5000.00	625.00	30000.00	✓	Up to 11 (Shared limit)
d3en.12xlarge	7000.00	875.00	40000.00	✓	Up to 3 (Shared limit)
H1					
h1.2xlarge	1750.00	218.75	12000.00	✗	Up to 40 (Xen-based limit)
h1.4xlarge	3500.00	437.50	20000.00	✗	Up to 40 (Xen-based limit)
h1.8xlarge	7000.00	875.00	40000.00	✗	Up to 40 (Xen-based limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
h1.16xlarge	14000.00	1750.00	80000.00	x	Up to 40 (Xen-based limit)

I3

i3.large	425.00	53.12	3000.00	x	Up to 40 (Xen-based limit)
i3.xlarge	850.00	106.25	6000.00	x	Up to 40 (Xen-based limit)
i3.2xlarge	1700.00	212.50	12000.00	x	Up to 40 (Xen-based limit)
i3.4xlarge	3500.00	437.50	16000.00	x	Up to 40 (Xen-based limit)
i3.8xlarge	7000.00	875.00	32500.00	x	Up to 40 (Xen-based limit)
i3.16xlarge	14000.00	1750.00	65000.00	x	Up to 40 (Xen-based limit)
i3.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
I3en					
i3en.large ¹	576.00 / 4750.00	72.10 / 593.75	3000.00 / 20000.00	✓	Up to 26 (Shared limit)
i3en.xlarge ¹	1153.00 / 4750.00	144.20 / 593.75	6000.00 / 20000.00	✓	Up to 26 (Shared limit)
i3en.2xlarge ¹	2307.00 / 4750.00	288.39 / 593.75	12000.00 / 20000.00	✓	Up to 25 (Shared limit)
i3en.3xlarge ¹	3800.00 / 4750.00	475.00 / 593.75	15000.00 / 20000.00	✓	Up to 26 (Shared limit)
i3en.6xlarge	4750.00	593.75	20000.00	✓	Up to 25 (Shared limit)
i3en.12xlarge	9500.00	1187.50	40000.00	✓	Up to 23 (Shared limit)
i3en.24xlarge	19000.00	2375.00	80000.00	✓	Up to 19 (Shared limit)
i3en.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
I4g					
i4g.large ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	Up to 26 (Shared limit)
i4g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
i4g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	Up to 26 (Shared limit)
i4g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
i4g.8xlarge	10000.00	1250.00	40000.00	✓	Up to 25 (Shared limit)
i4g.16xlarge	20000.00	2500.00	80000.00	✓	Up to 23 (Shared limit)
I4i					
i4i.large ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	Up to 26 (Shared limit)
i4i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	Up to 26 (Shared limit)
i4i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	Up to 26 (Shared limit)
i4i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
i4i.8xlarge	10000.00	1250.00	40000.00	✓	Up to 25 (Shared limit)
i4i.12xlarge	15000.00	1875.00	60000.00	✓	Up to 24 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
i4i.16xlarge	20000.00	2500.00	80000.00	✓	Up to 23 (Shared limit)
i4i.24xlarge	30000.00	3750.00	120000.00	✓	Up to 21 (Shared limit)
i4i.32xlarge	40000.00	5000.00	160000.00	✓	Up to 19 (Shared limit)
i4i.metal	40000.00	5000.00	160000.00	✓	Up to 31 (Shared limit)
i7i					
i7i.large ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
i7i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	32 (Dedicated limit)
i7i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	32 (Dedicated limit)
i7i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
i7i.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
i7i.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
i7i.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
i7i.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
i7i.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)
i7i.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
i7i.metal-48xl	60000.00	7500.00	240000.00	✓	79 (Dedicated limit)
I7ie					
i7ie.large ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
i7ie.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
i7ie.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	32 (Dedicated limit)
i7ie.3xlarge ¹	3750.00 / 10000.00	468.75 / 1250.00	15000.00 / 40000.00	✓	32 (Dedicated limit)
i7ie.6xlarge ¹	7500.00 / 10000.00	937.50 / 1250.00	30000.00 / 40000.00	✓	32 (Dedicated limit)
i7ie.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
i7ie.18xlarge	22500.00	2812.50	90000.00	✓	48 (Dedicated limit)
i7ie.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
i7ie.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)
i7ie.meta l-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
i7ie.meta l-48xl	60000.00	7500.00	240000.00	✓	79 (Dedicated limit)
I8g					
i8g.large ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
i8g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	32 (Dedicated limit)
i8g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	32 (Dedicated limit)
i8g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	32 (Dedicated limit)
i8g.8xlarge	10000.00	1250.00	40000.00	✓	32 (Dedicated limit)
i8g.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
i8g.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
i8g.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
i8g.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)
i8g.metal-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
I8ge					
i8ge.large ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	32 (Dedicated limit)
i8ge.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	32 (Dedicated limit)
i8ge.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	32 (Dedicated limit)
i8ge.3xlarge ¹	3750.00 / 10000.00	468.75 / 1250.00	15000.00 / 40000.00	✓	32 (Dedicated limit)
i8ge.6xlarge ¹	7500.00 / 10000.00	937.50 / 1250.00	30000.00 / 40000.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
i8ge.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
i8ge.18xlarge	22500.00	2812.50	90000.00	✓	48 (Dedicated limit)
i8ge.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
i8ge.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)
i8ge.meta l-24xl	30000.00	3750.00	120000.00	✓	39 (Dedicated limit)
i8ge.meta l-48xl	60000.00	7500.00	240000.00	✓	79 (Dedicated limit)
Im4gn					
im4gn.large ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	Up to 26 (Shared limit)
im4gn.xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	Up to 26 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
im4gn.2xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
im4gn.4xlarge	10000.00	1250.00	40000.00	✓	Up to 26 (Shared limit)
im4gn.8xlarge	20000.00	2500.00	80000.00	✓	Up to 25 (Shared limit)
im4gn.16xlarge	40000.00	5000.00	160000.00	✓	Up to 23 (Shared limit)
Is4gen					
is4gen.medium ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	Up to 26 (Shared limit)
is4gen.large ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	Up to 26 (Shared limit)
is4gen.xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	Up to 26 (Shared limit)
is4gen.2xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	Up to 26 (Shared limit)
is4gen.4xlarge	10000.00	1250.00	40000.00	✓	Up to 25 (Shared limit)
is4gen.8xlarge	20000.00	2500.00	80000.00	✓	Up to 23 (Shared limit)

Note

¹ These instances can support maximum performance for 30 minutes at least once every 24 hours, after which they revert to their baseline performance. Other instances can sustain the maximum performance indefinitely. If your workload requires sustained maximum performance for longer than 30 minutes, use one of these instances.

Instance store specifications

The following table shows the instance store volume configuration for supported instance types, along with the aggregated IOPS performance with 4,096 byte block size at queue depth saturation.

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
D2					
d2.xlarge	3 x 2048 GB	HDD		✓	
d2.2xlarge	6 x 2048 GB	HDD		✓	
d2.4xlarge	12 x 2048 GB	HDD		✓	
d2.8xlarge	24 x 2048 GB	HDD		✓	
D3					
d3.xlarge	3 x 1980 GB	NVMe HDD			✓
d3.2xlarge	6 x 1980 GB	NVMe HDD			✓
d3.4xlarge	12 x 1980 GB	NVMe HDD			✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
d3.xlarge	24 x 1980 GB	NVMe HDD			✓
D3en					
d3en.xlarge	2 x 13980 GB	NVMe HDD			✓
d3en.2xlarge	4 x 13980 GB	NVMe HDD			✓
d3en.4xlarge	8 x 13980 GB	NVMe HDD			✓
d3en.6xlarge	12 x 13980 GB	NVMe HDD			✓
d3en.8xlarge	16 x 13980 GB	NVMe HDD			✓
d3en.12xlarge	24 x 13980 GB	NVMe HDD			✓
H1					
h1.2xlarge	1 x 2000 GB	HDD		✓	
h1.4xlarge	2 x 2000 GB	HDD		✓	
h1.8xlarge	4 x 2000 GB	HDD		✓	
h1.16xlarge	8 x 2000 GB	HDD		✓	
I3					

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
i3.large	1 x 475 GB	NVMe SSD	103,125 / 35,000		✓
i3.xlarge	1 x 950 GB	NVMe SSD	206,250 / 70,000		✓
i3.2xlarge	1 x 1900 GB	NVMe SSD	412,500 / 180,000		✓
i3.4xlarge	2 x 1900 GB	NVMe SSD	825,000 / 360,000		✓
i3.8xlarge	4 x 1900 GB	NVMe SSD	1,650,000 / 720,000		✓
i3.16xlarge	8 x 1900 GB	NVMe SSD	3,300,000 / 1,440,000		✓
i3.metal	8 x 1900 GB	NVMe SSD	3,300,000 / 1,440,000		✓
I3en					
i3en.large	1 x 1250 GB	NVMe SSD	42,500 / 32,500		✓
i3en.xlarge	1 x 2500 GB	NVMe SSD	85,000 / 65,000		✓
i3en.2xlarge	2 x 2500 GB	NVMe SSD	170,000 / 130,000		✓
i3en.3xlarge	1 x 7500 GB	NVMe SSD	250,000 / 200,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
i3en.6xlarge	2 x 7500 GB	NVMe SSD	500,000 / 400,000		✓
i3en.12xlarge	4 x 7500 GB	NVMe SSD	1,000,000 / 800,000		✓
i3en.24xlarge	8 x 7500 GB	NVMe SSD	2,000,000 / 1,600,000		✓
i3en.metal	8 x 7500 GB	NVMe SSD	2,000,000 / 1,600,000		✓
I4g					
i4g.large	1 x 468 GB	NVMe SSD	31,250 / 25,000		✓
i4g.xlarge	1 x 937 GB	NVMe SSD	62,500 / 50,000		✓
i4g.2xlarge	1 x 1875 GB	NVMe SSD	125,000 / 100,000		✓
i4g.4xlarge	1 x 3750 GB	NVMe SSD	250,000 / 200,000		✓
i4g.8xlarge	2 x 3750 GB	NVMe SSD	500,000 / 400,000		✓
i4g.16xlarge	4 x 3750 GB	NVMe SSD	1,000,000 / 800,000		✓
I4i					
i4i.large	1 x 468 GB	NVMe SSD	50,000 / 27,500		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
i4i.xlarge	1 x 937 GB	NVMe SSD	100,000 / 55,000		✓
i4i.2xlarge	1 x 1875 GB	NVMe SSD	200,000 / 110,000		✓
i4i.4xlarge	1 x 3750 GB	NVMe SSD	400,000 / 220,000		✓
i4i.8xlarge	2 x 3750 GB	NVMe SSD	800,000 / 440,000		✓
i4i.12xlarge	3 x 3750 GB	NVMe SSD	1,200,000 / 660,000		✓
i4i.16xlarge	4 x 3750 GB	NVMe SSD	1,600,000 / 880,000		✓
i4i.24xlarge	6 x 3750 GB	NVMe SSD	2,400,000 / 1,320,000		✓
i4i.32xlarge	8 x 3750 GB	NVMe SSD	3,200,000 / 1,760,000		✓
i4i.metal	8 x 3750 GB	NVMe SSD	3,200,000 / 1,760,000		✓
i7i					
i7i.large	1 x 468 GB	NVMe SSD	75,000 / 41,250		✓
i7i.xlarge	1 x 937 GB	NVMe SSD	150,000 / 82,500		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
i7i.2xlarge	1 x 1875 GB	NVMe SSD	300,000 / 165,000		✓
i7i.4xlarge	1 x 3750 GB	NVMe SSD	600,000 / 330,000		✓
i7i.8xlarge	2 x 3750 GB	NVMe SSD	1,200,000 / 660,000		✓
i7i.12xlarge	3 x 3750 GB	NVMe SSD	1,800,000 / 990,000		✓
i7i.16xlarge	4 x 3750 GB	NVMe SSD	2,400,000 / 1,320,000		✓
i7i.24xlarge	6 x 3750 GB	NVMe SSD	3,600,000 / 1,980,000		✓
i7i.48xlarge	12 x 3750 GB	NVMe SSD	7,200,000 / 3,960,000		✓
i7i.metal-24xl	6 x 3750 GB	NVMe SSD	3,600,000 / 1,980,000		✓
i7i.metal-48xl	12 x 3750 GB	NVMe SSD	7,200,000 / 3,960,000		✓
I7ie					
i7ie.large	1 x 1250 GB	NVMe SSD	54,166 / 43,333		✓
i7ie.xlarge	1 x 2500 GB	NVMe SSD	108,333 / 86,666		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
i7ie.2xlarge	2 x 2500 GB	NVMe SSD	216,666 / 173,332		✓
i7ie.3xlarge	1 x 7500 GB	NVMe SSD	325,000 / 260,000		✓
i7ie.6xlarge	2 x 7500 GB	NVMe SSD	650,000 / 520,000		✓
i7ie.12xlarge	4 x 7500 GB	NVMe SSD	1,300,000 / 1,040,000		✓
i7ie.18xlarge	6 x 7500 GB	NVMe SSD	1,950,000 / 1,560,000		✓
i7ie.24xlarge	8 x 7500 GB	NVMe SSD	2,600,000 / 2,080,000		✓
i7ie.48xlarge	16 x 7500 GB	NVMe SSD	5,200,000 / 4,160,000		✓
i7ie.metal-24xl	8 x 7500 GB	NVMe SSD	2,600,000 / 2,080,000		✓
i7ie.metal-48xl	16 x 7500 GB	NVMe SSD	5,200,000 / 4,160,000		✓
I8g					
i8g.large	1 x 468 GB	NVMe SSD	75,000 / 41,250		✓
i8g.xlarge	1 x 937 GB	NVMe SSD	150,000 / 82,500		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
i8g.2xlarge	1 x 1875 GB	NVMe SSD	300,000 / 165,000		✓
i8g.4xlarge	1 x 3750 GB	NVMe SSD	600,000 / 330,000		✓
i8g.8xlarge	2 x 3750 GB	NVMe SSD	1,200,000 / 660,000		✓
i8g.12xlarge	3 x 3750 GB	NVMe SSD	1,800,000 / 990,000		✓
i8g.16xlarge	4 x 3750 GB	NVMe SSD	2,400,000 / 1,320,000		✓
i8g.24xlarge	6 x 3750 GB	NVMe SSD	3,600,000 / 1,980,000		✓
i8g.48xlarge	12 x 3750 GB	NVMe SSD	7,200,000 / 3,960,000		✓
i8g.metal-24xl	6 x 3750 GB	NVMe SSD	3,600,000 / 1,980,000		✓
I8ge					
i8ge.large	1 x 1250 GB	NVMe SSD	54,166 / 43,333		✓
i8ge.xlarge	1 x 2500 GB	NVMe SSD	108,333 / 86,666		✓
i8ge.2xlarge	2 x 2500 GB	NVMe SSD	216,666 / 173,332		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
i8ge.3xlarge	1 x 7500 GB	NVMe SSD	325,000 / 260,000		✓
i8ge.6xlarge	2 x 7500 GB	NVMe SSD	650,000 / 520,000		✓
i8ge.12xlarge	4 x 7500 GB	NVMe SSD	1,300,000 / 1,040,000		✓
i8ge.18xlarge	6 x 7500 GB	NVMe SSD	1,950,000 / 1,560,000		✓
i8ge.24xlarge	8 x 7500 GB	NVMe SSD	2,600,000 / 2,080,000		✓
i8ge.48xlarge	16 x 7500 GB	NVMe SSD	5,200,000 / 4,160,000		✓
i8ge.metal-24xl	8 x 7500 GB	NVMe SSD	2,600,000 / 2,080,000		✓
i8ge.metal-48xl	16 x 7500 GB	NVMe SSD	5,200,000 / 4,160,000		✓
Im4gn					
im4gn.large	1 x 937 GB	NVMe SSD	31,250 / 25,000		✓
im4gn.xlarge	1 x 1875 GB	NVMe SSD	62,500 / 50,000		✓
im4gn.2xlarge	1 x 3750 GB	NVMe SSD	125,000 / 100,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
im4gn.4xlarge	1 x 7500 GB	NVMe SSD	250,000 / 200,000		✓
im4gn.8xlarge	2 x 7500 GB	NVMe SSD	500,000 / 400,000		✓
im4gn.16xlarge	4 x 7500 GB	NVMe SSD	1,000,000 / 800,000		✓
Is4gen					
is4gen.medium	1 x 937 GB	NVMe SSD	31,250 / 25,000		✓
is4gen.large	1 x 1875 GB	NVMe SSD	62,500 / 50,000		✓
is4gen.xlarge	1 x 3750 GB	NVMe SSD	125,000 / 100,000		✓
is4gen.2xlarge	1 x 7500 GB	NVMe SSD	250,000 / 200,000		✓
is4gen.4xlarge	2 x 7500 GB	NVMe SSD	500,000 / 400,000		✓
is4gen.8xlarge	4 x 7500 GB	NVMe SSD	1,000,000 / 800,000		✓

¹ Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see [Optimize disk performance for instance store volumes](#).

² For more information, see [Instance store volume TRIM support](#).

Security specifications

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
D2						
d2.xlarge	✓	✗	✗	✗	✗	✗
d2.2xlarge	✓	✗	✗	✗	✗	✗
d2.4xlarge	✓	✗	✗	✗	✗	✗
d2.8xlarge	✓	✗	✗	✗	✗	✗
D3						
d3.xlarge	✓	✓	✓	✗	✓	✓
d3.2xlarge	✓	✓	✓	✗	✓	✓
d3.4xlarge	✓	✓	✓	✗	✓	✓
d3.8xlarge	✓	✓	✓	✗	✓	✓
D3en						
d3en.xlarge	✓	✓	✓	✗	✓	✓
d3en.2xlarge	✓	✓	✓	✗	✓	✓
d3en.4xlarge	✓	✓	✓	✗	✓	✓
d3en.6xlarge	✓	✓	✓	✗	✓	✓
d3en.8xlarge	✓	✓	✓	✗	✓	✓
d3en.12xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
H1						
h1.2xlarge	✓	✓	✗	✗	✗	✗
h1.4xlarge	✓	✓	✗	✗	✗	✗
h1.8xlarge	✓	✓	✗	✗	✗	✗
h1.16xlarge	✓	✓	✗	✗	✗	✗
I3						
i3.large	✓	✓	✗	✗	✗	✗
i3.xlarge	✓	✓	✗	✗	✗	✗
i3.2xlarge	✓	✓	✗	✗	✗	✗
i3.4xlarge	✓	✓	✗	✗	✗	✗
i3.8xlarge	✓	✓	✗	✗	✗	✗
i3.16xlarge	✓	✓	✗	✗	✗	✗
i3.metal	✓	✓	✗	✗	✗	✗
I3en						
i3en.large	✓	✓	✓	✗	✓	✗
i3en.xlarge	✓	✓	✓	✗	✓	✓
i3en.2xlarge	✓	✓	✓	✗	✓	✓
i3en.3xlarge	✓	✓	✓	✗	✓	✓
i3en.6xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
i3en.12xlarge	✓	✓	✓	✗	✓	✓
i3en.24xlarge	✓	✓	✓	✗	✓	✓
i3en.metal	✓	✓	✓	✗	✗	✗
I4g						
i4g.large	✓	✓	✓	✗	✗	✓
i4g.xlarge	✓	✓	✓	✗	✗	✓
i4g.2xlarge	✓	✓	✓	✗	✗	✓
i4g.4xlarge	✓	✓	✓	✗	✗	✓
i4g.8xlarge	✓	✓	✓	✗	✗	✓
i4g.16xlarge	✓	✓	✓	✗	✗	✓
I4i						
i4i.large	✓	✓	✓	✗	✓	✗
i4i.xlarge	✓	✓	✓	✗	✓	✓
i4i.2xlarge	✓	✓	✓	✗	✓	✓
i4i.4xlarge	✓	✓	✓	✗	✓	✓
i4i.8xlarge	✓	✓	✓	✗	✓	✓
i4i.12xlarge	✓	✓	✓	✗	✓	✓
i4i.16xlarge	✓	✓	✓	✗	✓	✓
i4i.24xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
i4i.32xlarge	✓	✓	✓	✗	✓	✓
i4i.metal	✓	✓	✓	✗	✗	✗
I7i						
i7i.large	✓	✓	✓	✗	✓	✗
i7i.xlarge	✓	✓	✓	✗	✓	✓
i7i.2xlarge	✓	✓	✓	✗	✓	✓
i7i.4xlarge	✓	✓	✓	✗	✓	✓
i7i.8xlarge	✓	✓	✓	✗	✓	✓
i7i.12xlarge	✓	✓	✓	✗	✓	✓
i7i.16xlarge	✓	✓	✓	✗	✓	✓
i7i.24xlarge	✓	✓	✓	✗	✓	✓
i7i.48xlarge	✓	✓	✓	✗	✓	✓
i7i.metal-24xl	✓	✓	✓	✗	✗	✗
i7i.metal-48xl	✓	✓	✓	✗	✗	✗
I7ie						
i7ie.large	✓	✓	✓	✗	✓	✗
i7ie.xlarge	✓	✓	✓	✗	✓	✓
i7ie.2xlarge	✓	✓	✓	✗	✓	✓
i7ie.3xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
i7ie.6xlarge	✓	✓	✓	✗	✓	✓
i7ie.12xlarge	✓	✓	✓	✗	✓	✓
i7ie.18xlarge	✓	✓	✓	✗	✓	✓
i7ie.24xlarge	✓	✓	✓	✗	✓	✓
i7ie.48xlarge	✓	✓	✓	✗	✓	✓
i7ie.metal-24xl	✓	✓	✓	✗	✗	✗
i7ie.metal-48xl	✓	✓	✓	✗	✗	✗
I8g						
i8g.large	✓	✓	✓	✗	✓	✓
i8g.xlarge	✓	✓	✓	✗	✓	✓
i8g.2xlarge	✓	✓	✓	✗	✓	✓
i8g.4xlarge	✓	✓	✓	✗	✓	✓
i8g.8xlarge	✓	✓	✓	✗	✓	✓
i8g.12xlarge	✓	✓	✓	✗	✓	✓
i8g.16xlarge	✓	✓	✓	✗	✓	✓
i8g.24xlarge	✓	✓	✓	✗	✓	✓
i8g.48xlarge	✓	✓	✓	✗	✓	✓
i8g.metal-24xl	✓	✓	✓	✗	✗	✗
I8ge						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
i8ge.large	✓	✓	✓	✗	✓	✓
i8ge.xlarge	✓	✓	✓	✗	✓	✓
i8ge.2xlarge	✓	✓	✓	✗	✓	✓
i8ge.3xlarge	✓	✓	✓	✗	✓	✓
i8ge.6xlarge	✓	✓	✓	✗	✓	✓
i8ge.12xlarge	✓	✓	✓	✗	✓	✓
i8ge.18xlarge	✓	✓	✓	✗	✓	✓
i8ge.24xlarge	✓	✓	✓	✗	✓	✓
i8ge.48xlarge	✓	✓	✓	✗	✓	✓
i8ge.metal-24xl	✓	✓	✓	✗	✗	✗
i8ge.metal-48xl	✓	✓	✓	✗	✗	✗
Im4gn						
im4gn.large	✓	✓	✓	✗	✗	✗
im4gn.xlarge	✓	✓	✓	✗	✗	✗
im4gn.2xlarge	✓	✓	✓	✗	✗	✗
im4gn.4xlarge	✓	✓	✓	✗	✗	✗
im4gn.8xlarge	✓	✓	✓	✗	✗	✗
im4gn.16xlarge	✓	✓	✓	✗	✗	✗
Is4gen						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
is4gen.medium	✓	✓	✓	X	X	X
is4gen.large	✓	✓	✓	X	X	X
is4gen.xlarge	✓	✓	✓	X	X	X
is4gen.2xlarge	✓	✓	✓	X	X	X
is4gen.4xlarge	✓	✓	✓	X	X	X
is4gen.8xlarge	✓	✓	✓	X	X	X

Specifications for Amazon EC2 accelerated computing instances

Accelerated computing instances use hardware accelerators, or co-processors, to perform functions, such as floating point number calculations, graphics processing, or data pattern matching, more efficiently than is possible in software running on CPUs.

For information on previous generation instance types of this category, such as G3 instances, see [Specifications for Amazon EC2 previous generation instances](#).

Contents

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- [Instance family summary](#)
- [Performance specifications](#)
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- [Security specifications](#)

Pricing

For pricing information, see [Amazon EC2 On-Demand Pricing](#).

Instance families and instance types

Instance family	Available instance types
DL1	dl1.24xlarge
DL2q	dl2q.24xlarge
F1	f1.2xlarge f1.4xlarge f1.16xlarge
F2	f2.6xlarge f2.12xlarge f2.48xlarge
G4ad	g4ad.xlarge g4ad.2xlarge g4ad.4xlarge g4ad.8xlarge g4ad.16xlarge
G4dn	g4dn.xlarge g4dn.2xlarge g4dn.4xlarge g4dn.8xlarge g4dn.12xlarge g4dn.16xlarge g4dn.metal
G5	g5.xlarge g5.2xlarge g5.4xlarge g5.8xlarge g5.12xlarge g5.16xlarge g5.24xlarge g5.48xlarge
G5g	g5g.xlarge g5g.2xlarge g5g.4xlarge g5g.8xlarge g5g.16xlarge g5g.metal
G6	g6.xlarge g6.2xlarge g6.4xlarge g6.8xlarge g6.12xlarge g6.16xlarge g6.24xlarge g6.48xlarge
G6e	g6e.xlarge g6e.2xlarge g6e.4xlarge g6e.8xlarge g6e.12xlarge g6e.16xlarge g6e.24xlarge g6e.48xlarge
G6f	g6f.large g6f.xlarge g6f.2xlarge g6f.4xlarge
Gr6	gr6.4xlarge gr6.8xlarge
Gr6f	gr6f.4xlarge
Inf1	inf1.xlarge inf1.2xlarge inf1.6xlarge inf1.24xlarge

Instance family	Available instance types
Inf2	inf2.xlarge inf2.8xlarge inf2.24xlarge inf2.48xlarge
P3	p3.2xlarge p3.8xlarge p3.16xlarge
P3dn	p3dn.24xlarge
P4d	p4d.24xlarge
P4de	p4de.24xlarge
P5	p5.4xlarge p5.48xlarge
P5e	p5e.48xlarge
P5en	p5en.48xlarge
P6-B200	p6-b200.48xlarge
P6e-GB200	p6e-gb200.36xlarge
Trn1	trn1.2xlarge trn1.32xlarge
Trn1n	trn1n.32xlarge
Trn2	trn2.48xlarge
Trn2u	trn2u.48xlarge
VT1	vt1.3xlarge vt1.6xlarge vt1.24xlarge

Instance family summary

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
DL1	Nitro v3	Intel (x86_64)	x	✓	✓	x	Linux
DL2q	Nitro v3	Intel (x86_64)	x	✓	✓	x	Linux
F1	Xen	Intel (x86_64)	x	✓	✓	x	Linux
F2	Nitro v4	AMD (x86_64)	x	✓	✓	x	Linux
G4ad	Nitro v3	AMD (x86_64)	x	✓	✓	x	Windows Linux
G4dn	Nitro v3	Intel (x86_64)	✓	✓	✓	x	Windows Linux
G5	Nitro v3	AMD (x86_64)	x	✓	✓	x	Windows Linux
G5g	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	x	Linux
G6	Nitro v4	AMD (x86_64)	x	✓	✓	x	Windows Linux
G6e	Nitro v4	AMD (x86_64)	x	✓	✓	x	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
G6f	Nitro v4	AMD (x86_64)	x	x	✓	x	Windows Linux
Gr6	Nitro v4	AMD (x86_64)	x	x	✓	x	Windows Linux
Gr6f	Nitro v4	AMD (x86_64)	x	x	✓	x	Windows Linux
Inf1	Nitro v3	Intel (x86_64)	x	✓	✓	x	Linux
Inf2	Nitro v4	AMD (x86_64)	x	✓	✓	x	Linux
P3	Xen	Intel (x86_64)	x	✓	✓	x	Windows Linux
P3dn	Nitro v3	Intel (x86_64)	x	✓	✓	x	Windows Linux
P4d	Nitro v3	Intel (x86_64)	x	✓	✓	x	Linux
P4de	Nitro v3	Intel (x86_64)	x	x	✓	x	Linux
P5	Nitro v4	AMD (x86_64)	x	x	✓	x	Linux
P5e	Nitro v4	AMD (x86_64)	x	x	✓	x	Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
P5en	Nitro v5	Intel (x86_64)	x	x	✓	x	Linux
P6-B200	Nitro v6	Intel (x86_64)	x	x	✓	x	Linux
P6e-GB200	Nitro v5	NVIDIA Grace (arm64)	x	x	x	x	Linux
Trn1	Nitro v4	Intel (x86_64)	x	✓	✓	x	Linux
Trn1n	Nitro v4	Intel (x86_64)	x	x	✓	x	Linux
Trn2	Nitro v5	Intel (x86_64)	x	x	✓	x	Linux
Trn2u	Nitro v5	Intel (x86_64)	x	x	x	x	Linux
VT1	Nitro v3	Intel (x86_64)	x	✓	✓	x	Linux

Performance specifications

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
DL1							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
dl1.24xlarge	768.00	Intel Xeon P-8275CL	96	48	2	8 x Habana Gaudi HL-205 GPU	256 GiB (8 x 32 GiB)

DL2q

dl2q.24xlarge	768.00	Intel Xeon Cascade Lake	96	48	2	8 x Qualcomm Qualcomm AI100 inference accelerator	125 GiB (8 x 15 GiB)
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F1

f1.2xlarge	122.00	Intel Xeon E5-2686v4	8	4	2	1 x Xilinx Virtex UltraScale (VU9P) FPGA	64 GiB (1 x 64 GiB)
f1.4xlarge	244.00	Intel Xeon E5-2686v4	16	8	2	2 x Xilinx Virtex UltraScale (VU9P) FPGA	128 GiB (2 x 64 GiB)
f1.16xlarge	976.00	Intel Xeon E5-2686v4	64	32	2	8 x Xilinx Virtex UltraScale (VU9P) FPGA	512 GiB (8 x 64 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
F2							
f2.6xlarge	256.00	AMD EPYC 7R13	24	12	2	1 x Xilinx Virtex UltraScale + (VU47P) FPGA	80 GiB (1 x 80 GiB)
f2.12xlarge	512.00	AMD EPYC 7R13	48	24	2	2 x Xilinx Virtex UltraScale + (VU47P) FPGA	160 GiB (2 x 80 GiB)
f2.48xlarge	2048.00	AMD EPYC 7R13	192	96	2	8 x Xilinx Virtex UltraScale + (VU47P) FPGA	640 GiB (8 x 80 GiB)
G4ad							
g4ad.xlarge	16.00	2nd Gen AMD EPYC 7R32	4	2	2	1 x AMD Radeon Pro V520 GPU	8 GiB (1 x 8 GiB)
g4ad.2xlarge	32.00	2nd Gen AMD EPYC 7R32	8	4	2	1 x AMD Radeon Pro V520 GPU	8 GiB (1 x 8 GiB)
g4ad.4xlarge	64.00	2nd Gen AMD EPYC 7R32	16	8	2	1 x AMD Radeon Pro V520 GPU	8 GiB (1 x 8 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
g4ad.8xlarge	128.00	2nd Gen AMD EPYC 7R32	32	16	2	2 x AMD Radeon Pro V520 GPU	16 GiB (2 x 8 GiB)
g4ad.16xlarge	256.00	2nd Gen AMD EPYC 7R32	64	32	2	4 x AMD Radeon Pro V520 GPU	32 GiB (4 x 8 GiB)
G4dn							
g4dn.xlarge	16.00	Intel Xeon P-8259L	4	2	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.2xlarge	32.00	Intel Xeon P-8259L	8	4	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.4xlarge	64.00	Intel Xeon P-8259L	16	8	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.8xlarge	128.00	Intel Xeon P-8259L	32	16	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
g4dn.12xlarge	192.00	Intel Xeon P-8259L	48	24	2	4 x NVIDIA T4 GPU	64 GiB (4 x 16 GiB)
g4dn.16xlarge	256.00	Intel Xeon P-8259L	64	32	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.metal	384.00	Intel Xeon P-8259L	96	48	2	8 x NVIDIA T4 GPU	128 GiB (8 x 16 GiB)

G5

g5.xlarge	16.00	2nd Gen AMD EPYC 7R32	4	2	2	1 x NVIDIA A10G GPU	22 GiB (1 x 22 GiB)
g5.2xlarge	32.00	2nd Gen AMD EPYC 7R32	8	4	2	1 x NVIDIA A10G GPU	22 GiB (1 x 22 GiB)
g5.4xlarge	64.00	2nd Gen AMD EPYC 7R32	16	8	2	1 x NVIDIA A10G GPU	22 GiB (1 x 22 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
g5.8xlarge	128.00	2nd Gen AMD EPYC 7R32	32	16	2	1 x NVIDIA A10G GPU	22 GiB (1 x 22 GiB)
g5.12xlarge	192.00	2nd Gen AMD EPYC 7R32	48	24	2	4 x NVIDIA A10G GPU	89 GiB (4 x 22 GiB)
g5.16xlarge	256.00	2nd Gen AMD EPYC 7R32	64	32	2	1 x NVIDIA A10G GPU	22 GiB (1 x 22 GiB)
g5.24xlarge	384.00	2nd Gen AMD EPYC 7R32	96	48	2	4 x NVIDIA A10G GPU	89 GiB (4 x 22 GiB)
g5.48xlarge	768.00	2nd Gen AMD EPYC 7R32	192	96	2	8 x NVIDIA A10G GPU	178 GiB (8 x 22 GiB)
G5g							
g5g.xlarge	8.00	AWS Graviton2 Processor	4	4	1	1 x NVIDIA T4g GPU	16 GiB (1 x 16 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
g5g.2xlarge	16.00	AWS Graviton2 Processor	8	8	1	1 x NVIDIA T4g GPU	16 GiB (1 x 16 GiB)
g5g.4xlarge	32.00	AWS Graviton2 Processor	16	16	1	1 x NVIDIA T4g GPU	16 GiB (1 x 16 GiB)
g5g.8xlarge	64.00	AWS Graviton2 Processor	32	32	1	1 x NVIDIA T4g GPU	16 GiB (1 x 16 GiB)
g5g.16xlarge	128.00	AWS Graviton2 Processor	64	64	1	2 x NVIDIA T4g GPU	32 GiB (2 x 16 GiB)
g5g.metal	128.00	AWS Graviton2 Processor	64	64	1	2 x NVIDIA T4g GPU	32 GiB (2 x 16 GiB)
G6							
g6.xlarge	16.00	AMD EPYC 7R13	4	2	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
g6.2xlarge	32.00	AMD EPYC 7R13	8	4	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)
g6.4xlarge	64.00	AMD EPYC 7R13	16	8	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)
g6.8xlarge	128.00	AMD EPYC 7R13	32	16	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)
g6.12xlarge	192.00	AMD EPYC 7R13	48	24	2	4 x NVIDIA L4 GPU	89 GiB (4 x 22 GiB)
g6.16xlarge	256.00	AMD EPYC 7R13	64	32	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)
g6.24xlarge	384.00	AMD EPYC 7R13	96	48	2	4 x NVIDIA L4 GPU	89 GiB (4 x 22 GiB)
g6.48xlarge	768.00	AMD EPYC 7R13	192	96	2	8 x NVIDIA L4 GPU	178 GiB (8 x 22 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
G6e							
g6e.xlarge	32.00	AMD EPYC 7R13	4	2	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)
g6e.2xlarge	64.00	AMD EPYC 7R13	8	4	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)
g6e.4xlarge	128.00	AMD EPYC 7R13	16	8	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)
g6e.8xlarge	256.00	AMD EPYC 7R13	32	16	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)
g6e.12xlarge	384.00	AMD EPYC 7R13	48	24	2	4 x NVIDIA L40S GPU	178 GiB (4 x 44 GiB)
g6e.16xlarge	512.00	AMD EPYC 7R13	64	32	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
g6e.24xlarge	768.00	AMD EPYC 7R13	96	48	2	4 x NVIDIA L40S GPU	178 GiB (4 x 44 GiB)
g6e.48xlarge	1536.00	AMD EPYC 7R13	192	96	2	8 x NVIDIA L40S GPU	357 GiB (8 x 44 GiB)
G6f							
g6f.large	8.00	AMD EPYC 7R13	2	1	2	1 x NVIDIA L4 GPU	2 GiB (1 x 2 GiB)
g6f.xlarge	16.00	AMD EPYC 7R13	4	2	2	1 x NVIDIA L4 GPU	2 GiB (1 x 2 GiB)
g6f.2xlarge	32.00	AMD EPYC 7R13	8	4	2	1 x NVIDIA L4 GPU	5 GiB (1 x 5 GiB)
g6f.4xlarge	64.00	AMD EPYC 7R13	16	8	2	1 x NVIDIA L4 GPU	11 GiB (1 x 11 GiB)
Gr6							
gr6.4xlarge	128.00	AMD EPYC 7R13	16	8	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
gr6.8xlarge	256.00	AMD EPYC 7R13	32	16	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)

Gr6f

gr6f.4xlarge	128.00	AMD EPYC 7R13	16	8	2	1 x NVIDIA L4 GPU	11 GiB (1 x 11 GiB)
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Inf1

inf1.xlarge	8.00	Intel Xeon P-8259L	4	2	2	1 x AWS Inferentia inference accelerator	8 GiB (1 x 8 GiB)
inf1.2xlarge	16.00	Intel Xeon P-8259L	8	4	2	1 x AWS Inferentia inference accelerator	8 GiB (1 x 8 GiB)
inf1.6xlarge	48.00	Intel Xeon P-8259L	24	12	2	4 x AWS Inferentia inference accelerator	32 GiB (4 x 8 GiB)
inf1.24xlarge	192.00	Intel Xeon P-8259L	96	48	2	16 x AWS Inferentia inference accelerator	128 GiB (16 x 8 GiB)

Inf2

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
inf2.xlarge	16.00	AMD EPYC 7R13	4	2	2	1 x AWS Inferentia2 inference accelerator	32 GiB (1 x 32 GiB)
inf2.8xlarge	128.00	AMD EPYC 7R13	32	16	2	1 x AWS Inferentia2 inference accelerator	32 GiB (1 x 32 GiB)
inf2.24xlarge	384.00	AMD EPYC 7R13	96	48	2	6 x AWS Inferentia2 inference accelerator	192 GiB (6 x 32 GiB)
inf2.48xlarge	768.00	AMD EPYC 7R13	192	96	2	12 x AWS Inferentia2 inference accelerator	384 GiB (12 x 32 GiB)
P3							
p3.2xlarge	61.00	Intel Xeon E5-2686 v4	8	4	2	1 x NVIDIA V100 GPU	16 GiB (1 x 16 GiB)
p3.8xlarge	244.00	Intel Xeon E5-2686 v4	32	16	2	4 x NVIDIA V100 GPU	64 GiB (4 x 16 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
p3.16xlarge	488.00	Intel Xeon E5-2686 v4	64	32	2	8 x NVIDIA V100 GPU	128 GiB (8 x 16 GiB)
P3dn							
p3dn.24xlarge	768.00	Intel Xeon Platinum 8175	96	48	2	8 x NVIDIA V100 GPU	256 GiB (8 x 32 GiB)
P4d							
p4d.24xlarge	1152.00	Intel Xeon Platinum 8175	96	48	2	8 x NVIDIA A100 GPU	320 GiB (8 x 40 GiB)
P4de							
p4de.24xlarge	1152.00	Intel Xeon Platinum 8175	96	48	2	8 x NVIDIA A100 GPU	640 GiB (8 x 80 GiB)
P5							
p5.4xlarge	256.00	AMD EPYC 7R13	16	8	2	1 x NVIDIA H100 GPU	80 GiB (1 x 80 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
p5.48xlarge	2048.00	AMD EPYC 7R13	192	96	2	8 x NVIDIA H100 GPU	640 GiB (8 x 80 GiB)
P5e							
p5e.48xlarge	2048.00	AMD EPYC 7R13	192	96	2	8 x NVIDIA H200 GPU	1128 GiB (8 x 141 GiB)
P5en							
p5en.48xlarge	2048.00	Intel Xeon Sapphire Rapids	192	96	2	8 x NVIDIA H200 GPU	1128 GiB (8 x 141 GiB)
P6-B200							
p6-b200.48xlarge	2048.00	Intel Xeon Emerald Rapids	192	96	2	8 x NVIDIA B200 GPU	1432 GiB (8 x 179 GiB)
P6e-GB200							
p6e-gb200.36xlarge	960.00	Nvidia Grace CPU	144	144	1	4 x NVIDIA B200 GPU	740 GiB (4 x 185 GiB)
Trn1							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
trn1.2xlarge	32.00	Intel Xeon Ice Lake 8375C	8	4	2	1 x AWS Trainium accelerators	32 GiB (1 x 32 GiB)
trn1.32xlarge	512.00	Intel Xeon Ice Lake 8375C	128	64	2	16 x AWS Trainium accelerators	512 GiB (16 x 32 GiB)
Trn1n							
trn1n.32xlarge	512.00	Intel Xeon Ice Lake	128	64	2	16 x AWS Trainium accelerators	512 GiB (16 x 32 GiB)
Trn2							
trn2.48xlarge	2048.00	Intel Xeon Sapphire Rapids	192	96	2	16 x AWS Trainium2 accelerators	8192 GiB (16 x 512 GiB)
Trn2u							
trn2u.48xlarge	2048.00	Intel Xeon Sapphire Rapids	192	96	2	x	x
VT1							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
vt1.3xlarge	24.00	Intel Cascade Lake P-8259CL	12	6	2	1 x Xilinx U30 media accelerator	24 GiB (1 x 24 GiB)
vt1.6xlarge	48.00	Intel Cascade Lake P-8259CL	24	12	2	2 x Xilinx U30 media accelerator	48 GiB (2 x 24 GiB)
vt1.24xlarge	192.00	Intel Cascade Lake P-8259CL	96	48	2	8 x Xilinx U30 media accelerator	192 GiB (8 x 24 GiB)

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
DL1								
dl1.24xlarge	4x 100 Gigabit	✓	✓	x	4	60	50	✓
DL2q								
dl2q.24xlarge	100 Gigabit	✓	✓	x	1	15	50	✓
F1								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
f1.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
f1.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
f1.16xlarge	25 Gigabit	✗	✓	✗	1	8	50	✓
F2								
f2.6xlarge	12.5 Gigabit	✗	✓	✗	1	8	30	✓
f2.12xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
f2.48xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
G4ad								
g4ad.xlarge ¹	2.0 / 10.0	✗	✓	✗	1	2	4	✓
g4ad.2xlarge ¹	4.167 / 10.0	✗	✓	✗	1	2	4	✓
g4ad.4xlarge ¹	8.333 / 10.0	✗	✓	✗	1	3	10	✓
g4ad.8xlarge	15 Gigabit	✗	✓	✗	1	4	15	✓
g4ad.16xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
G4dn								
g4dn.xlarge ¹	5.0 / 25.0	✗	✓	✗	1	3	10	✓
g4dn.2xlarge ¹	10.0 / 25.0	✗	✓	✗	1	3	10	✓
g4dn.4xlarge ¹	20.0 / 25.0	✗	✓	✗	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
g4dn.8xlarge	50 Gigabit	✓	✓	✗	1	4	15	✓
g4dn.12xlarge	50 Gigabit	✓	✓	✗	1	8	30	✓
g4dn.16xlarge	50 Gigabit	✓	✓	✗	1	4	15	✓
g4dn.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
G5								
g5.xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
g5.2xlarge ¹	5.0 / 10.0	✗	✓	✗	1	4	15	✓
g5.4xlarge ¹	10.0 / 25.0	✗	✓	✗	1	8	30	✓
g5.8xlarge	25 Gigabit	✓	✓	✗	1	8	30	✓
g5.12xlarge	40 Gigabit	✓	✓	✗	1	15	50	✓
g5.16xlarge	25 Gigabit	✓	✓	✗	1	8	30	✓
g5.24xlarge	50 Gigabit	✓	✓	✗	1	15	50	✓
g5.48xlarge	100 Gigabit	✓	✓	✗	1	7	50	✓
G5g								
g5g.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
g5g.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
g5g.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
g5g.8xlarge	12 Gigabit	✗	✓	✗	1	8	30	✓
g5g.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
g5g.metal	25 Gigabit	✗	✓	✗	1	15	50	✓
G6								
g6.xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
g6.2xlarge ¹	5.0 / 10.0	✗	✓	✗	1	4	15	✓
g6.4xlarge ¹	10.0 / 25.0	✗	✓	✗	1	8	30	✓
g6.8xlarge	25 Gigabit	✓	✓	✗	1	8	30	✓
g6.12xlarge	40 Gigabit	✓	✓	✗	1	8	30	✓
g6.16xlarge	25 Gigabit	✓	✓	✗	1	15	50	✓
g6.24xlarge	50 Gigabit	✓	✓	✗	1	15	50	✓
g6.48xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
G6e								
g6e.xlarge ¹	2.5 / 20.0	✗	✓	✗	1	4	15	✓
g6e.2xlarge ¹	5.0 / 20.0	✗	✓	✗	1	4	15	✓
g6e.4xlarge	20 Gigabit	✗	✓	✗	1	8	30	✓
g6e.8xlarge	25 Gigabit	✓	✓	✗	1	8	30	✓
g6e.12xlarge	100 Gigabit	✓	✓	✓	1	10	30	✓
g6e.16xlarge	35 Gigabit	✓	✓	✗	1	15	50	✓
g6e.24xlarge	200 Gigabit	✓	✓	✓	2	20	50	✓
g6e.48xlarge	400 Gigabit	✓	✓	✓	4	40	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
G6f								
g6f.large ¹	1.5 / 10.0	✗	✓	✗	1	2	10	✓
g6f.xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
g6f.2xlarge ¹	5.0 / 10.0	✗	✓	✗	1	4	15	✓
g6f.4xlarge ¹	10.0 / 25.0	✗	✓	✗	1	8	30	✓
Gr6								
gr6.4xlarge ¹	10.0 / 25.0	✗	✓	✗	1	8	30	✓
gr6.8xlarge	25 Gigabit	✓	✓	✗	1	8	30	✓
Gr6f								
gr6f.4xlarge ¹	10.0 / 25.0	✗	✓	✗	1	8	30	✓
Inf1								
inf1.xlarge ¹	5.0 / 25.0	✗	✓	✗	1	4	10	✓
inf1.2xlarge ¹	5.0 / 25.0	✗	✓	✗	1	4	10	✓
inf1.6xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
inf1.24xlarge	100 Gigabit	✓	✓	✗	1	11	30	✓
Inf2								
inf2.xlarge ¹	2.083 / 15.0	✗	✓	✗	1	4	15	✓
inf2.8xlarge ¹	16.667 / 25.0	✗	✓	✗	1	8	30	✓
inf2.24xlarge	50 Gigabit	✗	✓	✗	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
inf2.48xlarge	100 Gigabit	✗	✓	✗	1	15	50	✓
P3								
p3.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
p3.8xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
p3.16xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
P3dn								
p3dn.24xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
P4d								
p4d.24xlarge	4x 100 Gigabit	✓	✓	✗	4	60	50	✓
P4de								
p4de.24xlarge	4x 100 Gigabit	✓	✓	✗	4	60	50	✓
P5								
p5.4xlarge	100 Gigabit	✓	✓	✗	1	4	30	✓
p5.48xlarge	3200 Gigabit	✓	✓	✓	32	64	50	✓
P5e								
p5e.48xlarge	3200 Gigabit	✓	✓	✓	32	64	50	✓
P5en								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
p5en.48xlarge	3200 Gigabit	✓	✓	✓	16	64	50	✓
P6-B200								
p6-b200.48xlarge	3200 Gigabit	✓	✓	✓	8	32	50	✓
P6e-GB200								
p6e-gb200.36xlarge	3200 Gigabit	✓	✓	✗	17	39	50	✓
Trn1								
trn1.2xlarge ¹	3.125 / 12.5	✗	✓	✗	1	4	15	✓
trn1.32xlarge	8x 100 Gigabit	✓	✓	✗	8	40	50	✓
Trn1n								
trn1n.32xlarge	16x 100 Gigabit	✓	✓	✗	16	80	50	✓
Trn2								
trn2.48xlarge	16x 200 Gigabit	✓	✓	✗	16	32	50	✓
Trn2u								
trn2u.48xlarge	16x 200 Gigabit	✓	✓	✗	16	32	50	✓
VT1								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
vt1.3xlarge	3.12 Gigabit	✗	✓	✗	1	4	15	✓
vt1.6xlarge	6.25 Gigabit	✗	✓	✗	1	8	30	✓
vt1.24xlarge	25 Gigabit	✓	✓	✗	1	15	50	✓

Note

¹ These instances have a baseline bandwidth and can use a network I/O credit mechanism to burst beyond their baseline bandwidth on a best effort basis. Other instances types can sustain their maximum performance indefinitely. For more information, see [instance network bandwidth](#).

Amazon EBS specifications

The following table indicates which instance types are Amazon EBS optimized by default and which optionally support it. It also describes their EBS-optimized performance, including dedicated bandwidth to Amazon EBS, the typical maximum aggregate throughput that can be achieved on that dedicated connection with a streaming read workload and 128 KiB I/O size, and the maximum IOPS the instance type can support when using a 16 KiB I/O size. Instance types not listed do not support Amazon EBS optimization.

Important

An instance's EBS performance is bounded by the instance's performance limits, or the aggregated performance of its attached volumes, whichever is smaller. To achieve maximum EBS performance, an instance must have attached volumes that provide a combined performance equal to or greater than the maximum instance performance. For example, to achieve 80,000 IOPS for `r6i.16xlarge`, the instance must have at least 5 gp3 volumes provisioned with 16,000 IOPS each (5 volumes x 16,000 IOPS = 80,000 IOPS).

We recommend that you choose an EBS–optimized instance type that provides more dedicated Amazon EBS throughput than your application needs; otherwise, the connection between Amazon EBS and Amazon EC2 can become a performance bottleneck.

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
DL1					
dl1.24xlarge	19000.00	2375.00	80000.00	✓	Up to 28 (Shared limit)
DL2q					
dl2q.24xlarge	19000.00	2375.00	80000.00	✓	Up to 19 (Shared limit)
F1					
f1.2xlarge	1700.00	212.50	12000.00	✗	Up to 26 (Xen-based limit)
f1.4xlarge	3500.00	437.50	44000.00	✗	Up to 25 (Xen-based limit)
f1.16xlarge	14000.00	1750.00	75000.00	✗	Up to 19 (Xen-based limit)
F2					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
f2.6xlarge	7500.00	937.50	30000.00	✓	32 (Dedicated limit)
f2.12xlarge	15000.00	1875.00	60000.00	✓	32 (Dedicated limit)
f2.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)

G4ad

g4ad.xlarge ¹	400.00 / 3170.00	50.00 / 396.25	1700.00 / 13333.00	✓	Up to 25 (Shared limit)
g4ad.2xlarge ¹	800.00 / 3170.00	100.00 / 396.25	3400.00 / 13333.00	✓	Up to 25 (Shared limit)
g4ad.4xlarge ¹	1580.00 / 3170.00	197.50 / 396.25	6700.00 / 13333.00	✓	Up to 25 (Shared limit)
g4ad.8xlarge	3170.00	396.25	13333.00	✓	Up to 24 (Shared limit)
g4ad.16xlarge	6300.00	787.50	26667.00	✓	Up to 21 (Shared limit)

G4dn

g4dn.xlarge ¹	950.00 / 3500.00	118.75 / 437.50	3000.00 / 20000.00	✓	Up to 25 (Shared limit)
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Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
g4dn.2xlarge ¹	1150.00 / 3500.00	143.75 / 437.50	6000.00 / 20000.00	✓	Up to 25 (Shared limit)
g4dn.4xlarge	4750.00	593.75	20000.00	✓	Up to 25 (Shared limit)
g4dn.8xlarge	9500.00	1187.50	40000.00	✓	Up to 25 (Shared limit)
g4dn.12xlarge	9500.00	1187.50	40000.00	✓	Up to 22 (Shared limit)
g4dn.16xlarge	9500.00	1187.50	40000.00	✓	Up to 25 (Shared limit)
g4dn.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
G5					
g5.xlarge ¹	700.00 / 3500.00	87.50 / 437.50	3000.00 / 15000.00	✓	Up to 25 (Shared limit)
g5.2xlarge ¹	850.00 / 3500.00	106.25 / 437.50	3500.00 / 15000.00	✓	Up to 25 (Shared limit)
g5.4xlarge	4750.00	593.75	20000.00	✓	Up to 25 (Shared limit)
g5.8xlarge	16000.00	2000.00	65000.00	✓	Up to 25 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
g5.12xlarge	16000.00	2000.00	65000.00	✓	Up to 22 (Shared limit)
g5.16xlarge	16000.00	2000.00	65000.00	✓	Up to 25 (Shared limit)
g5.24xlarge	19000.00	2375.00	80000.00	✓	Up to 22 (Shared limit)
g5.48xlarge	19000.00	2375.00	80000.00	✓	Up to 9 (Shared limit)
G5g					
g5g.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	Up to 26 (Shared limit)
g5g.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	Up to 26 (Shared limit)
g5g.4xlarge	4750.00	593.75	20000.00	✓	Up to 26 (Shared limit)
g5g.8xlarge	9500.00	1187.50	40000.00	✓	Up to 26 (Shared limit)
g5g.16xlarge	19000.00	2375.00	80000.00	✓	Up to 25 (Shared limit)
g5g.metal	19000.00	2375.00	80000.00	✓	Up to 31 (Shared limit)
G6					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
g6.xlarge ¹	1000.00 / 5000.00	125.00 / 625.00	4000.00 / 20000.00	✓	32 (Dedicated limit)
g6.2xlarge ¹	2000.00 / 5000.00	250.00 / 625.00	8000.00 / 20000.00	✓	32 (Dedicated limit)
g6.4xlarge	8000.00	1000.00	32000.00	✓	32 (Dedicated limit)
g6.8xlarge	16000.00	2000.00	64000.00	✓	32 (Dedicated limit)
g6.12xlarge	20000.00	2500.00	80000.00	✓	32 (Dedicated limit)
g6.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
g6.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
g6.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)
G6e					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
g6e.xlarge ¹	1000.00 / 5000.00	125.00 / 625.00	4000.00 / 20000.00	✓	32 (Dedicated limit)
g6e.2xlarge ¹	2000.00 / 5000.00	250.00 / 625.00	8000.00 / 20000.00	✓	32 (Dedicated limit)
g6e.4xlarge	8000.00	1000.00	32000.00	✓	32 (Dedicated limit)
g6e.8xlarge	16000.00	2000.00	64000.00	✓	32 (Dedicated limit)
g6e.12xlarge	20000.00	2500.00	80000.00	✓	32 (Dedicated limit)
g6e.16xlarge	20000.00	2500.00	80000.00	✓	48 (Dedicated limit)
g6e.24xlarge	30000.00	3750.00	120000.00	✓	64 (Dedicated limit)
g6e.48xlarge	60000.00	7500.00	240000.00	✓	128 (Dedicated limit)

G6f

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
g6f.large ¹	936.00 / 5000.00	117.00 / 625.00	3750.00 / 20000.00	✓	32 (Dedicated limit)
g6f.xlarge ¹	1000.00 / 5000.00	125.00 / 625.00	4000.00 / 20000.00	✓	32 (Dedicated limit)
g6f.2xlarge ¹	2000.00 / 5000.00	250.00 / 625.00	8000.00 / 20000.00	✓	32 (Dedicated limit)
g6f.4xlarge	6000.00	750.00	24000.00	✓	32 (Dedicated limit)
Gr6					
gr6.4xlarge	8000.00	1000.00	32000.00	✓	32 (Dedicated limit)
gr6.8xlarge	16000.00	2000.00	64000.00	✓	32 (Dedicated limit)
Gr6f					
gr6f.4xlarge	8000.00	1000.00	32000.00	✓	32 (Dedicated limit)
Inf1					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
inf1.xlarge ¹	1190.00 / 4750.00	148.75 / 593.75	4000.00 / 20000.00	✓	Up to 26 (Shared limit)
inf1.2xlarge ¹	1190.00 / 4750.00	148.75 / 593.75	6000.00 / 20000.00	✓	Up to 26 (Shared limit)
inf1.6xlarge	4750.00	593.75	20000.00	✓	Up to 23 (Shared limit)
inf1.24xlarge	19000.00	2375.00	80000.00	✓	Up to 11 (Shared limit)
Inf2					
inf2.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	Up to 26 (Shared limit)
inf2.8xlarge	10000.00	1250.00	40000.00	✓	Up to 26 (Shared limit)
inf2.24xlarge	30000.00	3750.00	120000.00	✓	Up to 28 (Shared limit)
inf2.48xlarge	60000.00	7500.00	240000.00	✓	Up to 28 (Shared limit)
P3					
p3.2xlarge	1750.00	218.75	10000.00	x	Up to 26 (Xen-based limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
p3.8xlarge	7000.00	875.00	40000.00	✗	Up to 23 (Xen-based limit)
p3.16xlarge	14000.00	1750.00	80000.00	✗	Up to 19 (Xen-based limit)
P3dn					
p3dn.24xlarge	19000.00	2375.00	80000.00	✓	Up to 17 (Shared limit)
P4d					
p4d.24xlarge	19000.00	2375.00	80000.00	✓	28 (Dedicated limit)
P4de					
p4de.24xlarge	19000.00	2375.00	80000.00	✓	28 (Dedicated limit)
P5					
p5.4xlarge	10000.00	1250.00	32500.00	✓	32 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
p5.48xlarge	80000.00	10000.00	260000.00	✓	64 (Dedicated limit)
P5e					
p5e.48xlarge	80000.00	10000.00	260000.00	✓	64 (Dedicated limit)
P5en					
p5en.48xlarge	100000.00	12500.00	400000.00	✓	64 (Dedicated limit)
P6-B200					
p6-b200.48xlarge	100000.00	12500.00	400000.00	✓	64 (Dedicated limit)
P6e-GB200					
p6e-gb200.36xlarge	60000.00	7500.00	240000.00	✓	64 (Dedicated limit)
Trn1					
trn1.2xlarge1	5000.00 / 20000.00	625.00 / 2500.00	16250.00 / 65000.00	✓	Up to 25 (Shared limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
trn1.32xlarge	80000.00	10000.00	260000.00	✓	Up to 28 (Shared limit)
Trn1n					
trn1n.32xlarge	80000.00	10000.00	260000.00	✓	Up to 28 (Shared limit)
Trn2					
trn2.48xlarge	80000.00	10000.00	260000.00	✓	64 (Dedicated limit)
Trn2u					
trn2u.48xlarge	80000.00	10000.00	260000.00	✓	64 (Dedicated limit)
VT1					
vt1.3xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	10000.00 / 20000.00	✓	Up to 25 (Shared limit)
vt1.6xlarge	4750.00	593.75	20000.00	✓	Up to 23 (Shared limit)
vt1.24xlarge	19000.00	2375.00	80000.00	✓	Up to 27 (Shared limit)

Note

¹ These instances can support maximum performance for 30 minutes at least once every 24 hours, after which they revert to their baseline performance. Other instances can sustain the maximum performance indefinitely. If your workload requires sustained maximum performance for longer than 30 minutes, use one of these instances.

Instance store specifications

The following table shows the instance store volume configuration for supported instance types, along with the aggregated IOPS performance with 4,096 byte block size at queue depth saturation.

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
DL1					
dl1.24xlarge	4 x 1000 GB	NVMe SSD	1,000,000 / 800,000		✓
F1					
f1.2xlarge	1 x 470 GB	NVMe SSD			✓
f1.4xlarge	1 x 940 GB	NVMe SSD			✓
f1.16xlarge	4 x 940 GB	NVMe SSD			✓
F2					
f2.6xlarge	1 x 940 GB	NVMe SSD	400,000 / 125,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
f2.12xlarge	2 x 940 GB	NVMe SSD	800,000 / 250,000		✓
f2.48xlarge	8 x 940 GB	NVMe SSD	3,200,000 / 1,000,000		✓
G4ad					
g4ad.xlarge	1 x 150 GB	NVMe SSD	10,417 / 8,333		✓
g4ad.2xlarge	1 x 300 GB	NVMe SSD	20,833 / 16,667		✓
g4ad.4xlarge	1 x 600 GB	NVMe SSD	41,667 / 33,333		✓
g4ad.8xlarge	1 x 1200 GB	NVMe SSD	83,333 / 66,667		✓
g4ad.16xlarge	2 x 1200 GB	NVMe SSD	166,666 / 133,332		✓
G4dn					
g4dn.xlarge	1 x 125 GB	NVMe SSD	42,500 / 32,500		✓
g4dn.2xlarge	1 x 225 GB	NVMe SSD	42,500 / 32,500		✓
g4dn.4xlarge	1 x 225 GB	NVMe SSD	85,000 / 65,000		✓
g4dn.8xlarge	1 x 900 GB	NVMe SSD	250,000 / 200,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
g4dn.12xlarge	1 x 900 GB	NVMe SSD	250,000 / 200,000		✓
g4dn.16xlarge	1 x 900 GB	NVMe SSD	250,000 / 200,000		✓
g4dn.metal	2 x 900 GB	NVMe SSD	500,000 / 400,000		✓
G5					
g5.xlarge	1 x 250 GB	NVMe SSD	40,625 / 20,313		✓
g5.2xlarge	1 x 450 GB	NVMe SSD	40,625 / 20,313		✓
g5.4xlarge	1 x 600 GB	NVMe SSD	125,000 / 62,500		✓
g5.8xlarge	1 x 900 GB	NVMe SSD	250,000 / 125,000		✓
g5.12xlarge	1 x 3800 GB	NVMe SSD	312,500 / 156,250		✓
g5.16xlarge	1 x 1900 GB	NVMe SSD	250,000 / 125,000		✓
g5.24xlarge	1 x 3800 GB	NVMe SSD	312,500 / 156,250		✓
g5.48xlarge	2 x 3800 GB	NVMe SSD	625,000 / 312,500		✓
G6					

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
g6.xlarge	1 x 250 GB	NVMe SSD	40,625 / 20,000		✓
g6.2xlarge	1 x 450 GB	NVMe SSD	40,625 / 20,000		✓
g6.4xlarge	1 x 600 GB	NVMe SSD	125,000 / 40,000		✓
g6.8xlarge	2 x 450 GB	NVMe SSD	250,000 / 80,000		✓
g6.12xlarge	4 x 940 GB	NVMe SSD	312,500 / 125,000		✓
g6.16xlarge	2 x 940 GB	NVMe SSD	250,000 / 80,000		✓
g6.24xlarge	4 x 940 GB	NVMe SSD	312,500 / 156,248		✓
g6.48xlarge	8 x 940 GB	NVMe SSD	625,000 / 312,496		✓
G6e					
g6e.xlarge	1 x 250 GB	NVMe SSD	40,625 / 20,000		✓
g6e.2xlarge	1 x 450 GB	NVMe SSD	40,625 / 20,000		✓
g6e.4xlarge	1 x 600 GB	NVMe SSD	125,000 / 40,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
g6e.8xlarge	2 x 450 GB	NVMe SSD	250,000 / 80,000		✓
g6e.12xlarge	2 x 1900 GB	NVMe SSD	312,500 / 125,000		✓
g6e.16xlarge	2 x 950 GB	NVMe SSD	250,000 / 80,000		✓
g6e.24xlarge	2 x 1900 GB	NVMe SSD	312,500 / 156,250		✓
g6e.48xlarge	4 x 1900 GB	NVMe SSD	625,000 / 312,500		✓
G6f					
g6f.large	1 x 100 GB	NVMe SSD	16,250 / 8,000		✓
g6f.xlarge	1 x 100 GB	NVMe SSD	27,100 / 13,333		✓
g6f.2xlarge	1 x 200 GB	NVMe SSD	40,625 / 20,000		✓
g6f.4xlarge	1 x 450 GB	NVMe SSD	125,000 / 40,000		✓
Gr6					
gr6.4xlarge	1 x 600 GB	NVMe SSD	125,000 / 40,000		✓
gr6.8xlarge	2 x 450 GB	NVMe SSD	250,000 / 80,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
Gr6f					
gr6f.4xlarge	1 x 450 GB	NVMe SSD	125,000 / 40,000		✓
P3dn					
p3dn.24xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
P4d					
p4d.24xlarge	8 x 1000 GB	NVMe SSD	2,000,000 / 1,600,000		✓
P4de					
p4de.24xlarge	8 x 1000 GB	NVMe SSD	2,000,000 / 1,600,000		✓
P5					
p5.4xlarge	1 x 3800 GB	NVMe SSD	550,000 / 275,000		✓
p5.48xlarge	8 x 3800 GB	NVMe SSD	4,400,000 / 2,200,000		✓
P5e					
p5e.48xlarge	8 x 3800 GB	NVMe SSD	4,400,000 / 2,200,000		✓
P5en					

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
p5en.48xlarge	8 x 3800 GB	NVMe SSD	4,400,000 / 2,200,000		✓
P6-B200					
p6-b200.48xlarge	8 x 3800 GB	NVMe SSD	4,400,000 / 2,200,000		✓
P6e-GB200					
p6e-gb200.36xlarge	3 x 7500 GB	NVMe SSD	2,550,000 / 2,400,000		✓
Trn1					
trn1.2xlarge	1 x 474 GB	NVMe SSD	107,500 / 45,000		✓
trn1.32xlarge	4 x 1900 GB	NVMe SSD	1,720,000 / 720,000		✓
Trn1n					
trn1n.32xlarge	4 x 1900 GB	NVMe SSD	1,720,000 / 720,000		✓
Trn2					
trn2.48xlarge	4 x 1900 GB	NVMe SSD	1,720,000 / 720,000		✓
Trn2u					
trn2u.48xlarge	4 x 1900 GB	NVMe SSD	1,720,000 / 720,000		✓

¹ Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see [Optimize disk performance for instance store volumes](#).

² For more information, see [Instance store volume TRIM support](#).

Security specifications

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
DL1						
dl1.24xlarge	✓	✓	✓	x	x	✓
DL2q						
dl2q.24xlarge	✓	Instance store not supported	✓	x	x	✓
F1						
f1.2xlarge	✓	✓	x	x	x	x
f1.4xlarge	✓	✓	x	x	x	x
f1.16xlarge	✓	✓	x	x	x	x
F2						
f2.6xlarge	✓	✓	✓	x	✓	✓
f2.12xlarge	✓	✓	✓	x	✓	✓
f2.48xlarge	✓	✓	✓	x	✓	✓
G4ad						
g4ad.xlarge	✓	✓	✓	x	x	x

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
g4ad.2xlarge	✓	✓	✓	✗	✗	✗
g4ad.4xlarge	✓	✓	✓	✗	✗	✗
g4ad.8xlarge	✓	✓	✓	✗	✗	✗
g4ad.16xlarge	✓	✓	✓	✗	✗	✗
G4dn						
g4dn.xlarge	✓	✓	✓	✗	✓	✓
g4dn.2xlarge	✓	✓	✓	✗	✓	✓
g4dn.4xlarge	✓	✓	✓	✗	✓	✓
g4dn.8xlarge	✓	✓	✓	✗	✓	✓
g4dn.12xlarge	✓	✓	✓	✗	✓	✓
g4dn.16xlarge	✓	✓	✓	✗	✓	✓
g4dn.metal	✓	✓	✓	✗	✗	✗
G5						
g5.xlarge	✓	✓	✓	✗	✓	✓
g5.2xlarge	✓	✓	✓	✗	✓	✓
g5.4xlarge	✓	✓	✓	✗	✓	✓
g5.8xlarge	✓	✓	✓	✗	✓	✓
g5.12xlarge	✓	✓	✓	✗	✓	✓
g5.16xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
g5.24xlarge	✓	✓	✓	✗	✓	✓
g5.48xlarge	✓	✓	✓	✗	✓	✓
G5g						
g5g.xlarge	✓	Instance store not supported	✗	✗	✗	✗
g5g.2xlarge	✓	Instance store not supported	✗	✗	✗	✗
g5g.4xlarge	✓	Instance store not supported	✗	✗	✗	✗
g5g.8xlarge	✓	Instance store not supported	✗	✗	✗	✗
g5g.16xlarge	✓	Instance store not supported	✗	✗	✗	✗
g5g.metal	✓	Instance store not supported	✗	✗	✗	✗
G6						
g6.xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
g6.2xlarge	✓	✓	✓	✗	✓	✓
g6.4xlarge	✓	✓	✓	✗	✓	✓
g6.8xlarge	✓	✓	✓	✗	✓	✓
g6.12xlarge	✓	✓	✓	✗	✓	✓
g6.16xlarge	✓	✓	✓	✗	✓	✓
g6.24xlarge	✓	✓	✓	✗	✓	✓
g6.48xlarge	✓	✓	✓	✗	✓	✓
G6e						
g6e.xlarge	✓	✓	✓	✗	✓	✓
g6e.2xlarge	✓	✓	✓	✗	✓	✓
g6e.4xlarge	✓	✓	✓	✗	✓	✓
g6e.8xlarge	✓	✓	✓	✗	✓	✓
g6e.12xlarge	✓	✓	✓	✗	✓	✓
g6e.16xlarge	✓	✓	✓	✗	✓	✓
g6e.24xlarge	✓	✓	✓	✗	✓	✓
g6e.48xlarge	✓	✓	✓	✗	✓	✓
G6f						
g6f.large	✓	✓	✓	✗	✓	✗
g6f.xlarge	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
g6f.2xlarge	✓	✓	✓	✗	✓	✓
g6f.4xlarge	✓	✓	✓	✗	✓	✓
Gr6						
gr6.4xlarge	✓	✓	✓	✗	✓	✓
gr6.8xlarge	✓	✓	✓	✗	✓	✓
Gr6f						
gr6f.4xlarge	✓	✓	✓	✗	✓	✓
Inf1						
inf1.xlarge	✓	Instance store not supported	✓	✗	✓	✓
inf1.2xlarge	✓	Instance store not supported	✓	✗	✓	✓
inf1.6xlarge	✓	Instance store not supported	✓	✗	✓	✓
inf1.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
Inf2						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
inf2.xlarge	✓	Instance store not supported	✓	✗	✓	✓
inf2.8xlarge	✓	Instance store not supported	✓	✗	✓	✓
inf2.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
inf2.48xlarge	✓	Instance store not supported	✓	✗	✓	✓
P3						
p3.2xlarge	✓	Instance store not supported	✗	✗	✗	✗
p3.8xlarge	✓	Instance store not supported	✗	✗	✗	✗
p3.16xlarge	✓	Instance store not supported	✗	✗	✗	✗
P3dn						
p3dn.24xlarge	✓	✓	✓	✗	✗	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
P4d						
p4d.24xlarge	✓	✓	✓	✗	✗	✓
P4de						
p4de.24xlarge	✓	✓	✓	✗	✗	✓
P5						
p5.4xlarge	✓	✓	✓	✗	✓	✓
p5.48xlarge	✓	✓	✓	✗	✓	✓
P5e						
p5e.48xlarge	✓	✓	✓	✗	✓	✓
P5en						
p5en.48xlarge	✓	✓	✓	✗	✓	✓
P6-B200						
p6-b200.48xlarge	✓	✓	✓	✗	✓	✗
P6e-GB200						
p6e-gb200.36xlarge	✓	✓	✓	✗	✗	✗
Trn1						
trn1.2xlarge	✓	✓	✓	✗	✗	✗
trn1.32xlarge	✓	✓	✓	✗	✗	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
Trn1n						
trn1n.32xlarge	✓	✓	✓	x	x	x
Trn2						
trn2.48xlarge	✓	✓	✓	x	✓	✓
Trn2u						
trn2u.48xlarge	✓	✓	✓	x	✓	✓
VT1						
vt1.3xlarge	✓	Instance store not supported	✓	x	x	x
vt1.6xlarge	✓	Instance store not supported	✓	x	x	x
vt1.24xlarge	✓	Instance store not supported	✓	x	x	x

Specifications for Amazon EC2 high-performance computing instances

High-performance computing instances are purpose built to offer the best price performance for running HPC workloads at scale on AWS. These instances are ideal for applications that benefit from high-performance processors, such as large, complex simulations and deep learning workloads.

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- [Instance families and instance types](#)
- [Instance family summary](#)
- [Performance specifications](#)
- [Network specifications](#)
- [Amazon EBS specifications](#)
- [Instance store specifications](#)
- [Security specifications](#)

Pricing

For pricing information, see [Amazon EC2 On-Demand Pricing](#).

Instance families and instance types

Instance family	Available instance types
Hpc6a	hpc6a.48xlarge
Hpc6id	hpc6id.32xlarge
Hpc7a	hpc7a.12xlarge hpc7a.24xlarge hpc7a.48xlarge hpc7a.96xlarge
Hpc7g	hpc7g.4xlarge hpc7g.8xlarge hpc7g.16xlarge

Instance family summary

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
Hpc6a	Nitro v4	AMD (x86_64)	x	x	x	x	Linux
Hpc6id	Nitro v4	Intel (x86_64)	x	x	x	x	Windows Linux
Hpc7a	Nitro v4	AMD (x86_64)	x	x	x	x	Windows Linux
Hpc7g	Nitro v5	AWS Graviton (arm64)	x	x	x	x	Linux

Performance specifications

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
Hpc6a							
hpc6a.48xlarge	384.00	AMD EPYC 7R13	96	96	1	x	x
Hpc6id							
hpc6id.32xlarge	1024.00	Intel Xeon Ice Lake	64	64	1	x	x
Hpc7a							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
hpc7a.12xlarge	768.00	AMD EPYC 9R14	24	24	1	x	x
hpc7a.24xlarge	768.00	AMD EPYC 9R14	48	48	1	x	x
hpc7a.48xlarge	768.00	AMD EPYC 9R14	96	96	1	x	x
hpc7a.96xlarge	768.00	AMD EPYC 9R14	192	192	1	x	x
Hpc7g							
hpc7g.4xlarge	128.00	AWS Graviton3E Processor	16	16	1	x	x
hpc7g.8xlarge	128.00	AWS Graviton3E Processor	32	32	1	x	x
hpc7g.16xlarge	128.00	AWS Graviton3E Processor	64	64	1	x	x

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
Hpc6a								
hpc6a.48xlarge	100 Gigabit	✓	✓	x	1	2	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
Hpc6id								
hpc6id.32xlarge	200 Gigabit	✓	✓	✗	2	2	50	✓
Hpc7a								
hpc7a.12xlarge	300 Gigabit	✓	✓	✗	2	4	50	✓
hpc7a.24xlarge	300 Gigabit	✓	✓	✗	2	4	50	✓
hpc7a.48xlarge	300 Gigabit	✓	✓	✗	2	4	50	✓
hpc7a.96xlarge	300 Gigabit	✓	✓	✗	2	4	50	✓
Hpc7g								
hpc7g.4xlarge	200 Gigabit	✓	✓	✗	1	4	50	✓
hpc7g.8xlarge	200 Gigabit	✓	✓	✗	1	4	50	✓
hpc7g.16xlarge	200 Gigabit	✓	✓	✗	1	4	50	✓

Amazon EBS specifications

The following table indicates which instance types are Amazon EBS optimized by default and which optionally support it. It also describes their EBS-optimized performance, including dedicated bandwidth to Amazon EBS, the typical maximum aggregate throughput that can be achieved on that dedicated connection with a streaming read workload and 128 KiB I/O size, and the maximum

IOPS the instance type can support when using a 16 KiB I/O size. Instance types not listed do not support Amazon EBS optimization.

Important

An instance's EBS performance is bounded by the instance's performance limits, or the aggregated performance of its attached volumes, whichever is smaller. To achieve maximum EBS performance, an instance must have attached volumes that provide a combined performance equal to or greater than the maximum instance performance. For example, to achieve 80,000 IOPS for `r6i.16xlarge`, the instance must have at least 5 gp3 volumes provisioned with 16,000 IOPS each (5 volumes x 16,000 IOPS = 80,000 IOPS).

We recommend that you choose an EBS-optimized instance type that provides more dedicated Amazon EBS throughput than your application needs; otherwise, the connection between Amazon EBS and Amazon EC2 can become a performance bottleneck.

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
Hpc6a					
<code>hpc6a.48xlarge</code> ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	Up to 27 (Shared limit)
Hpc6id					
<code>hpc6id.32xlarge</code> ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	Up to 23 (Shared limit)
Hpc7a					
<code>hpc7a.12xlarge</code> ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	27 (Dedicated limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
hpc7a.24xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	27 (Dedicated limit)
hpc7a.48xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	27 (Dedicated limit)
hpc7a.96xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	27 (Dedicated limit)
Hpc7g					
hpc7g.4xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	Up to 27 (Shared limit)
hpc7g.8xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	Up to 27 (Shared limit)
hpc7g.16xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	Up to 27 (Shared limit)

Note

¹ These instances can support maximum performance for 30 minutes at least once every 24 hours, after which they revert to their baseline performance. Other instances can sustain the maximum performance indefinitely. If your workload requires sustained maximum performance for longer than 30 minutes, use one of these instances.

Instance store specifications

The following table shows the instance store volume configuration for supported instance types, along with the aggregated IOPS performance with 4,096 byte block size at queue depth saturation.

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
Hpc6id					
hpc6id.32xlarge	4 x 3800 GB	NVMe SSD	2,146,664 / 1,073,336		✓

¹ Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see [Optimize disk performance for instance store volumes](#).

² For more information, see [Instance store volume TRIM support](#).

Security specifications

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
Hpc6a						
hpc6a.48xlarge	✓	Instance store not supported	✓	✗	✓	✗
Hpc6id						
hpc6id.32xlarge	✓	✓	✓	✗	✓	✗
Hpc7a						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
hpc7a.12xlarge	✓	Instance store not supported	✓	✗	✗	✗
hpc7a.24xlarge	✓	Instance store not supported	✓	✗	✗	✗
hpc7a.48xlarge	✓	Instance store not supported	✓	✗	✗	✗
hpc7a.96xlarge	✓	Instance store not supported	✓	✗	✗	✗
Hpc7g						
hpc7g.4xlarge	✓	Instance store not supported	✓	✗	✗	✗
hpc7g.8xlarge	✓	Instance store not supported	✓	✗	✗	✗
hpc7g.16xlarge	✓	Instance store not supported	✓	✗	✗	✗

Specifications for Amazon EC2 previous generation instances

AWS offers previous generation instance types for users who have optimized their applications around them and have yet to upgrade. We encourage you to use current generation instance types to get the best performance, but we continue to support the following previous generation instance types.

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Pricing

For pricing information, see [Amazon EC2 On-Demand Pricing](#).

Instance families and instance types

Instance family	Available instance types
A1	a1.medium a1.large a1.xlarge a1.2xlarge a1.4xlarge a1.metal
C1	c1.medium c1.xlarge
C3	c3.large c3.xlarge c3.2xlarge c3.4xlarge c3.8xlarge
C4	c4.large c4.xlarge c4.2xlarge c4.4xlarge c4.8xlarge
G3	g3.4xlarge g3.8xlarge g3.16xlarge
I2	i2.xlarge i2.2xlarge i2.4xlarge i2.8xlarge

Instance family	Available instance types
M1	m1.small m1.medium m1.large m1.xlarge
M2	m2.xlarge m2.2xlarge m2.4xlarge
M3	m3.medium m3.large m3.xlarge m3.2xlarge
M4	m4.large m4.xlarge m4.2xlarge m4.4xlarge m4.10xlarge m4.16xlarge
P2	p2.xlarge p2.8xlarge p2.16xlarge
R3	r3.large r3.xlarge r3.2xlarge r3.4xlarge r3.8xlarge
R4	r4.large r4.xlarge r4.2xlarge r4.4xlarge r4.8xlarge r4.16xlarge
T1	t1.micro

Instance family summary

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
A1	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	x	Linux
C1	Xen	Intel (x86_64)	x	x	✓	x	Windows Linux
C3	Xen	Intel (x86_64)	x	✓	✓	✓	Windows Linux

Instance family	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
C4	Xen	Intel (x86_64)	<i>x</i>	✓	✓	✓	Windows Linux
G3	Xen	Intel (x86_64)	<i>x</i>	✓	✓	<i>x</i>	Windows Linux
I2	Xen	Intel (x86_64)	<i>x</i>	✓	✓	<i>x</i>	Windows Linux
M1	Xen	Intel (x86_64)	<i>x</i>	<i>x</i>	✓	<i>x</i>	Windows Linux
M2	Xen	Intel (x86_64)	<i>x</i>	<i>x</i>	✓	<i>x</i>	Windows Linux
M3	Xen	Intel (x86_64)	<i>x</i>	✓	✓	✓	Windows Linux
M4	Xen	Intel (x86_64)	<i>x</i>	✓	✓	✓	Windows Linux
P2	Xen	Intel (x86_64)	<i>x</i>	✓	✓	<i>x</i>	Windows Linux
R3	Xen	Intel (x86_64)	<i>x</i>	✓	✓	✓	Windows Linux
R4	Xen	Intel (x86_64)	<i>x</i>	✓	✓	✓	Windows Linux
T1	Xen	Intel (i386)	<i>x</i>	<i>x</i>	✓	<i>x</i>	Windows Linux

Performance specifications

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator or memory
A1							
a1.medium	2.00	AWS Graviton Processor	1	1	1	x	x
a1.large	4.00	AWS Graviton Processor	2	2	1	x	x
a1.xlarge	8.00	AWS Graviton Processor	4	4	1	x	x
a1.2xlarge	16.00	AWS Graviton Processor	8	8	1	x	x
a1.4xlarge	32.00	AWS Graviton Processor	16	16	1	x	x
a1.metal	32.00	AWS Graviton Processor	16	16	1	x	x
C1							
c1.medium	1.70	Intel Xeon Family	2	2	1	x	x
c1.xlarge	7.00	Intel Xeon Family	8	8	1	x	x
C3							
c3.large	3.75	Intel Xeon E5-2680v2	2	1	2	x	x
c3.xlarge	7.50	Intel Xeon E5-2680v2	4	2	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
c3.2xlarge	15.00	Intel Xeon E5-2680v2	8	4	2	x	x
c3.4xlarge	30.00	Intel Xeon E5-2680v2	16	8	2	x	x
c3.8xlarge	60.00	Intel Xeon E5-2680v2	32	16	2	x	x
C4							
c4.large	3.75	Intel Xeon E5-2666v3	2	1	2	x	x
c4.xlarge	7.50	Intel Xeon E5-2666v3	4	2	2	x	x
c4.2xlarge	15.00	Intel Xeon E5-2666v3	8	4	2	x	x
c4.4xlarge	30.00	Intel Xeon E5-2666v3	16	8	2	x	x
c4.8xlarge	60.00	Intel Xeon E5-2666v3	36	18	2	x	x
G3							
g3.4xlarge	122.00	Intel Xeon E5-2686 v4	16	8	2	1 x NVIDIA M60 GPU	8 GiB (1 x 8 GiB)

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
g3.8xlarge	244.00	Intel Xeon E5-2686 v4	32	16	2	2 x NVIDIA M60 GPU	16 GiB (2 x 8 GiB)
g3.16xlarge	488.00	Intel Xeon E5-2686 v4	64	32	2	4 x NVIDIA M60 GPU	32 GiB (4 x 8 GiB)
I2							
i2.xlarge	30.50	Intel Xeon E5-2670v2	4	2	2	x	x
i2.2xlarge	61.00	Intel Xeon E5-2670v2	8	4	2	x	x
i2.4xlarge	122.00	Intel Xeon E5-2670v2	16	8	2	x	x
i2.8xlarge	244.00	Intel Xeon E5-2670v2	32	16	2	x	x
M1							
m1.small	1.70	Intel Xeon Family	1	1	1	x	x
m1.medium	3.70	Intel Xeon Family	1	1	1	x	x
m1.large	7.50	Intel Xeon Family	2	2	1	x	x
m1.xlarge	15.00	Intel Xeon Family	4	4	1	x	x
M2							

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m2.xlarge	17.10	Intel Xeon Family	2	2	1	x	x
m2.2xlarge	34.20	Intel Xeon Family	4	4	1	x	x
m2.4xlarge	68.40	Intel Xeon Family	8	8	1	x	x
M3							
m3.medium	3.75	Intel Xeon E5-2670v2	1	1	1	x	x
m3.large	7.50	Intel Xeon E5-2670v2	2	1	2	x	x
m3.xlarge	15.00	Intel Xeon E5-2670v2	4	2	2	x	x
m3.2xlarge	30.00	Intel Xeon E5-2670v2	8	4	2	x	x
M4							
m4.large	8.00	Intel Xeon E5-2676v3	2	1	2	x	x
m4.xlarge	16.00	Intel Xeon E5-2676v3	4	2	2	x	x
m4.2xlarge	32.00	Intel Xeon E5-2676v3	8	4	2	x	x
m4.4xlarge	64.00	Intel Xeon E5-2676v3	16	8	2	x	x
m4.10xlarge	160.00	Intel Xeon E5-2676v3	40	20	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
m4.16xlarge	256.00	Intel Xeon E5-2686v4	64	32	2	x	x

P2

p2.xlarge	61.00	Intel Xeon E5-2686v4	4	2	2	1 x NVIDIA K80 GPU	12 GiB (1 x 12 GiB)
p2.8xlarge	488.00	Intel Xeon E5-2686v4	32	16	2	8 x NVIDIA K80 GPU	96 GiB (8 x 12 GiB)
p2.16xlarge	732.00	Intel Xeon E5-2686 v4	64	32	2	16 x NVIDIA K80 GPU	192 GiB (16 x 12 GiB)

R3

r3.large	15.00	Intel Xeon E5-2670v2	2	1	2	x	x
r3.xlarge	30.50	Intel Xeon E5-2670v2	4	2	2	x	x
r3.2xlarge	61.00	Intel Xeon E5-2670v2	8	4	2	x	x
r3.4xlarge	122.00	Intel Xeon E5-2670v2	16	8	2	x	x

Instance type	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators	Accelerator memory
r3.xlarge	244.00	Intel Xeon E5-2670v2	32	16	2	x	x
R4							
r4.large	15.25	Intel Broadwell E5-2686v4	2	1	2	x	x
r4.xlarge	30.50	Intel Broadwell E5-2686v4	4	2	2	x	x
r4.2xlarge	61.00	Intel Broadwell E5-2686v4	8	4	2	x	x
r4.4xlarge	122.00	Intel Broadwell E5-2686v4	16	8	2	x	x
r4.8xlarge	244.00	Intel Broadwell E5-2686v4	32	16	2	x	x
r4.16xlarge	488.00	Intel Broadwell E5-2686v4	64	32	2	x	x
T1							
t1.micro	0.61	Intel E5-2650	1	1	1	x	x

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
A1								
a1.medium ¹	0.5 / 10.0	x	✓	x	1	2	4	✓
a1.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
a1.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
a1.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
a1.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
a1.metal ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
C1								
c1.medium	Moderate	x	x	x	1	2	6	x
c1.xlarge	High	x	x	x	1	4	15	x
C3								
c3.large	Moderate	x	x ²	x	1	3	10	✓
c3.xlarge	Moderate	x	x ²	x	1	4	15	✓
c3.2xlarge	High	x	x ²	x	1	4	15	✓
c3.4xlarge	High	x	x ²	x	1	8	30	✓
c3.8xlarge	10 Gigabit	x	x ²	x	1	8	30	✓
C4								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
c4.large	Moderate	✗	✗ ²	✗	1	3	10	✓
c4.xlarge	High	✗	✗ ²	✗	1	4	15	✓
c4.2xlarge	High	✗	✗ ²	✗	1	4	15	✓
c4.4xlarge	High	✗	✗ ²	✗	1	8	30	✓
c4.8xlarge	10 Gigabit	✗	✗ ²	✗	1	8	30	✓
G3								
g3.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
g3.8xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
g3.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
I2								
i2.xlarge	Moderate	✗	✗ ²	✗	1	4	15	✓
i2.2xlarge	High	✗	✗ ²	✗	1	4	15	✓
i2.4xlarge	High	✗	✗ ²	✗	1	8	30	✓
i2.8xlarge	10 Gigabit	✗	✗ ²	✗	1	8	30	✓
M1								
m1.small	Low	✗	✗	✗	1	2	4	✗
m1.medium	Moderate	✗	✗	✗	1	2	6	✗
m1.large	Moderate	✗	✗	✗	1	3	10	✗
m1.xlarge	High	✗	✗	✗	1	4	15	✗

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
M2								
m2.xlarge	Moderate	✗	✗	✗	1	4	15	✗
m2.2xlarge	Moderate	✗	✗	✗	1	4	30	✗
m2.4xlarge	High	✗	✗	✗	1	8	30	✗
M3								
m3.medium	Moderate	✗	✗	✗	1	2	6	✗
m3.large	Moderate	✗	✗	✗	1	3	10	✗
m3.xlarge	High	✗	✗	✗	1	4	15	✗
m3.2xlarge	High	✗	✗	✗	1	4	30	✗
M4								
m4.large	Moderate	✗	✗ ²	✗	1	2	10	✓
m4.xlarge	High	✗	✗ ²	✗	1	4	15	✓
m4.2xlarge	High	✗	✗ ²	✗	1	4	15	✓
m4.4xlarge	High	✗	✗ ²	✗	1	8	30	✓
m4.10xlarge	10 Gigabit	✗	✗ ²	✗	1	8	30	✓
m4.16xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
P2								
p2.xlarge	High	✗	✓	✗	1	4	15	✓
p2.8xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces	IP addresses per interface	IPv6
p2.16xlarge	25 Gigabit	✗	✓	✗	1	8	30	✓
R3								
r3.large	Moderate	✗	✗ ²	✗	1	3	10	✓
r3.xlarge	Moderate	✗	✗ ²	✗	1	4	15	✓
r3.2xlarge	High	✗	✗ ²	✗	1	4	15	✓
r3.4xlarge	High	✗	✗ ²	✗	1	8	30	✓
r3.8xlarge	10 Gigabit	✗	✗ ²	✗	1	8	30	✓
R4								
r4.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
r4.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
r4.2xlarge ¹	2.5 / 10.0	✗	✓	✗	1	4	15	✓
r4.4xlarge ¹	5.0 / 10.0	✗	✓	✗	1	8	30	✓
r4.8xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
r4.16xlarge	25 Gigabit	✗	✓	✗	1	15	50	✓
T1								
t1.micro	Very Low	✗	✗	✗	1	2	2	✗

Note

¹ These instances have a baseline bandwidth and can use a network I/O credit mechanism to burst beyond their baseline bandwidth on a best effort basis. Other instances types can sustain their maximum performance indefinitely. For more information, see [instance network bandwidth](#).

² These instances support enhanced networking using the Intel 82599 VF interface.

Amazon EBS specifications

The following table indicates which instance types are Amazon EBS optimized by default and which optionally support it. It also describes their EBS-optimized performance, including dedicated bandwidth to Amazon EBS, the typical maximum aggregate throughput that can be achieved on that dedicated connection with a streaming read workload and 128 KiB I/O size, and the maximum IOPS the instance type can support when using a 16 KiB I/O size. Instance types not listed do not support Amazon EBS optimization.

Important

An instance's EBS performance is bounded by the instance's performance limits, or the aggregated performance of its attached volumes, whichever is smaller. To achieve maximum EBS performance, an instance must have attached volumes that provide a combined performance equal to or greater than the maximum instance performance. For example, to achieve 80,000 IOPS for `r6i.16xlarge`, the instance must have at least 5 gp3 volumes provisioned with 16,000 IOPS each (5 volumes x 16,000 IOPS = 80,000 IOPS).

We recommend that you choose an EBS-optimized instance type that provides more dedicated Amazon EBS throughput than your application needs; otherwise, the connection between Amazon EBS and Amazon EC2 can become a performance bottleneck.

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
A1					
a1.medium ¹	300.00 / 3500.00	37.50 / 437.50	2500.00 / 20000.00	✓	Up to 27 (Shared limit)
a1.large ¹	525.00 / 3500.00	65.62 / 437.50	4000.00 / 20000.00	✓	Up to 27 (Shared limit)
a1.xlarge ¹	800.00 / 3500.00	100.00 / 437.50	6000.00 / 20000.00	✓	Up to 27 (Shared limit)
a1.2xlarge ¹	1750.00 / 3500.00	218.75 / 437.50	10000.00 / 20000.00	✓	Up to 27 (Shared limit)
a1.4xlarge	3500.00	437.50	20000.00	✓	Up to 27 (Shared limit)
a1.metal	3500.00	437.50	20000.00	✓	Up to 31 (Shared limit)
C1					
c1.xlarge	1000.00	125.00	8000.00	✗	Up to 39 (Xen-based limit)
C3					
c3.xlarge	500.00	62.50	4000.00	✗	Up to 39 (Xen-based limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
c3.2xlarge	1000.00	125.00	8000.00	x	Up to 39 (Xen-based limit)
c3.4xlarge	2000.00	250.00	16000.00	x	Up to 39 (Xen-based limit)
C4					
c4.large	500.00	62.50	4000.00	x	Up to 40 (Xen-based limit)
c4.xlarge	750.00	93.75	6000.00	x	Up to 40 (Xen-based limit)
c4.2xlarge	1000.00	125.00	8000.00	x	Up to 40 (Xen-based limit)
c4.4xlarge	2000.00	250.00	16000.00	x	Up to 40 (Xen-based limit)
c4.8xlarge	4000.00	500.00	32000.00	x	Up to 40 (Xen-based limit)
G3					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
g3.4xlarge	3500.00	437.50	20000.00	x	Up to 26 (Xen-based limit)
g3.8xlarge	7000.00	875.00	40000.00	x	Up to 25 (Xen-based limit)
g3.16xlarge	14000.00	1750.00	80000.00	x	Up to 23 (Xen-based limit)
I2					
i2.xlarge	500.00	62.50	4000.00	x	Up to 40 (Xen-based limit)
i2.2xlarge	1000.00	125.00	8000.00	x	Up to 40 (Xen-based limit)
i2.4xlarge	2000.00	250.00	16000.00	x	Up to 40 (Xen-based limit)
M1					
m1.large	500.00	62.50	4000.00	x	Up to 39 (Xen-based limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m1.xlarge	1000.00	125.00	8000.00	x	Up to 39 (Xen-based limit)
M2					
m2.2xlarge	500.00	62.50	4000.00	x	Up to 39 (Xen-based limit)
m2.4xlarge	1000.00	125.00	8000.00	x	Up to 39 (Xen-based limit)
M3					
m3.xlarge	500.00	62.50	4000.00	x	Up to 39 (Xen-based limit)
m3.2xlarge	1000.00	125.00	8000.00	x	Up to 39 (Xen-based limit)
M4					
m4.large	450.00	56.25	3600.00	x	Up to 40 (Xen-based limit)
m4.xlarge	750.00	93.75	6000.00	x	Up to 40 (Xen-based limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
m4.2xlarge	1000.00	125.00	8000.00	x	Up to 40 (Xen-based limit)
m4.4xlarge	2000.00	250.00	16000.00	x	Up to 40 (Xen-based limit)
m4.10xlarge	4000.00	500.00	32000.00	x	Up to 40 (Xen-based limit)
m4.16xlarge	10000.00	1250.00	65000.00	x	Up to 40 (Xen-based limit)
P2					
p2.xlarge	750.00	93.75	6000.00	x	Up to 26 (Xen-based limit)
p2.8xlarge	5000.00	625.00	32500.00	x	Up to 19 (Xen-based limit)
p2.16xlarge	10000.00	1250.00	65000.00	x	Up to 11 (Xen-based limit)
R3					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r3.xlarge	500.00	62.50	4000.00	x	Up to 39 (Xen-based limit)
r3.2xlarge	1000.00	125.00	8000.00	x	Up to 39 (Xen-based limit)
r3.4xlarge	2000.00	250.00	16000.00	x	Up to 39 (Xen-based limit)
R4					
r4.large	425.00	53.12	3000.00	x	Up to 40 (Xen-based limit)
r4.xlarge	850.00	106.25	6000.00	x	Up to 40 (Xen-based limit)
r4.2xlarge	1700.00	212.50	12000.00	x	Up to 40 (Xen-based limit)
r4.4xlarge	3500.00	437.50	18750.00	x	Up to 40 (Xen-based limit)
r4.8xlarge	7000.00	875.00	37500.00	x	Up to 40 (Xen-based limit)

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS volume limit
r4.16xlarge	14000.00	1750.00	75000.00	x	Up to 40 (Xen-based limit)

T1

Note

¹ These instances can support maximum performance for 30 minutes at least once every 24 hours, after which they revert to their baseline performance. Other instances can sustain the maximum performance indefinitely. If your workload requires sustained maximum performance for longer than 30 minutes, use one of these instances.

C1, C3, I2, M1, M2, M3, and R3 instances are not Amazon EBS optimized by default. You can optionally enable [Amazon EBS optimization](#) for these instances during or after launch for an additional hourly fee.

Instance store specifications

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
C1					
c1.medium	1 x 350 GB	HDD		✓	
c1.xlarge	4 x 420 GB	HDD		✓	
C3					

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
c3.large	2 x 16 GB	SSD		✓	
c3.xlarge	2 x 40 GB	SSD		✓	
c3.2xlarge	2 x 80 GB	SSD		✓	
c3.4xlarge	2 x 160 GB	SSD		✓	
c3.8xlarge	2 x 320 GB	SSD		✓	
I2					
i2.xlarge	1 x 800 GB	SSD		✓	
i2.2xlarge	2 x 800 GB	SSD		✓	
i2.4xlarge	4 x 800 GB	SSD		✓	
i2.8xlarge	8 x 800 GB	SSD		✓	
M1					
m1.small	1 x 160 GB	HDD		✓	
m1.medium	1 x 410 GB	HDD		✓	
m1.large	2 x 420 GB	HDD		✓	
m1.xlarge	4 x 420 GB	HDD		✓	
M2					
m2.xlarge	1 x 420 GB	HDD		✓	
m2.2xlarge	1 x 850 GB	HDD		✓	
m2.4xlarge	2 x 840 GB	HDD		✓	

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initialization ¹	TRIM support ²
M3					
m3.medium	1 x 4 GB	SSD		✓	
m3.large	1 x 32 GB	SSD		✓	
m3.xlarge	2 x 40 GB	SSD		✓	
m3.2xlarge	2 x 80 GB	SSD		✓	
R3					
r3.large	1 x 32 GB	SSD		✓	
r3.xlarge	1 x 80 GB	SSD		✓	
r3.2xlarge	1 x 160 GB	SSD		✓	
r3.4xlarge	1 x 320 GB	SSD		✓	
r3.8xlarge	2 x 320 GB	SSD		✓	

¹ Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see [Optimize disk performance for instance store volumes](#).

² For more information, see [Instance store volume TRIM support](#).

Security specifications

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
A1						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
a1.medium	✓	Instance store not supported	✗	✗	✗	✗
a1.large	✓	Instance store not supported	✗	✗	✗	✗
a1.xlarge	✓	Instance store not supported	✗	✗	✗	✗
a1.2xlarge	✓	Instance store not supported	✗	✗	✗	✗
a1.4xlarge	✓	Instance store not supported	✗	✗	✗	✗
a1.metal	✓	Instance store not supported	✗	✗	✗	✗
C1						
c1.medium	✓	✗	✗	✗	✗	✗
c1.xlarge	✓	✗	✗	✗	✗	✗
C3						
c3.large	✓	✗	✗	✗	✗	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c3.xlarge	✓	X	X	X	X	X
c3.2xlarge	✓	X	X	X	X	X
c3.4xlarge	✓	X	X	X	X	X
c3.8xlarge	✓	X	X	X	X	X
C4						
c4.large	✓	Instance store not supported	X	X	X	X
c4.xlarge	✓	Instance store not supported	X	X	X	X
c4.2xlarge	✓	Instance store not supported	X	X	X	X
c4.4xlarge	✓	Instance store not supported	X	X	X	X
c4.8xlarge	✓	Instance store not supported	X	X	X	X
G3						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
g3.4xlarge	✓	Instance store not supported	X	X	X	X
g3.8xlarge	✓	Instance store not supported	X	X	X	X
g3.16xlarge	✓	Instance store not supported	X	X	X	X
I2						
i2.xlarge	✓	X	X	X	X	X
i2.2xlarge	✓	X	X	X	X	X
i2.4xlarge	✓	X	X	X	X	X
i2.8xlarge	✓	X	X	X	X	X
M1						
m1.small	✓	X	X	X	X	X
m1.medium	✓	X	X	X	X	X
m1.large	✓	X	X	X	X	X
m1.xlarge	✓	X	X	X	X	X
M2						
m2.xlarge	✓	X	X	X	X	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m2.2xlarge	✓	X	X	X	X	X
m2.4xlarge	✓	X	X	X	X	X
M3						
m3.medium	✓	X	X	X	X	X
m3.large	✓	X	X	X	X	X
m3.xlarge	✓	X	X	X	X	X
m3.2xlarge	✓	X	X	X	X	X
M4						
m4.large	✓	Instance store not supported	X	X	X	X
m4.xlarge	✓	Instance store not supported	X	X	X	X
m4.2xlarge	✓	Instance store not supported	X	X	X	X
m4.4xlarge	✓	Instance store not supported	X	X	X	X
m4.10xlarge	✓	Instance store not supported	X	X	X	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m4.16xlarge	✓	Instance store not supported	X	X	X	X
P2						
p2.xlarge	✓	Instance store not supported	X	X	X	X
p2.8xlarge	✓	Instance store not supported	X	X	X	X
p2.16xlarge	✓	Instance store not supported	X	X	X	X
R3						
r3.large	✓	X	X	X	X	X
r3.xlarge	✓	X	X	X	X	X
r3.2xlarge	✓	X	X	X	X	X
r3.4xlarge	✓	X	X	X	X	X
r3.8xlarge	✓	X	X	X	X	X
R4						
r4.large	✓	Instance store not supported	X	X	X	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r4.xlarge	✓	Instance store not supported	X	X	X	X
r4.2xlarge	✓	Instance store not supported	X	X	X	X
r4.4xlarge	✓	Instance store not supported	X	X	X	X
r4.8xlarge	✓	Instance store not supported	X	X	X	X
r4.16xlarge	✓	Instance store not supported	X	X	X	X
T1						
t1.micro	✓	Instance store not supported	X	X	X	X

Amazon EC2 instance types by Region

An Amazon EC2 instance is tied to the zone in which it was launched. The ID of an instance is tied to the Region for the instance, and can only be used in this Region.

Considerations

- When you create your AWS account, we set default quotas on these resources on a per-Region basis. We monitor your usage within each Region and raise your quotas automatically based on your use of Amazon EC2. For more information, see [Quotas](#).
- Each Region supports a subset of the available instance types.
- Each Local Zone supports a subset of the available instance types. For more information, see [AWS Local Zones Features](#).
- Each Wavelength Zone supports a subset of the available instance types. For more information, see [Amazon EC2 considerations](#).

US East (N. Virginia) — us-east-1

The following instance types are available in US East (N. Virginia).

- **General Purpose:** A1 | M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | M8gd | M8i | M8i-flex | Mac1 | Mac2 | Mac2-m1ultra | Mac2-m2 | Mac2-m2pro | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7gn | C7i | C7i-flex | C8g | C8gd | C8gn
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | R8gd | R8i | R8i-flex | U-3tb1 | U-6tb1 | U7i-6tb | U7i-8tb | U7i-12tb | U7in-16tb | U7in-24tb | U7in-32tb | X1 | X1e | X2gd | X2idn | X2iedn | X2iezn | X8g | z1d
- **Storage Optimized:** D2 | D3 | D3en | H1 | I2 | I3 | I3en | I4g | I4i | I7i | I7ie | I8g | I8ge | Im4gn | Is4gen
- **Accelerated Computing:** DL1 | F1 | F2 | G4ad | G4dn | G5 | G5g | G6 | G6e | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P3 | P3dn | P4d | P4de | P5 | P5en | P6-B200 | Trn1 | Trn1n | VT1
- **High Performance Computing:** Hpc7g

- **Previous Generation:** A1 | C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

US East (Ohio) — us-east-2

The following instance types are available in US East (Ohio).

- **General Purpose:** A1 | M4 | M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | M8gd | M8i | M8i-flex | Mac1 | Mac2 | Mac2-m2 | Mac2-m2pro | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7gn | C7i | C7i-flex | C8g | C8gd
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | R8gd | R8i | R8i-flex | U-3tb1 | U-6tb1 | U7i-12tb | X1 | X1e | X2gd | X2idn | X2iedn | X8g | z1d
- **Storage Optimized:** D2 | D3 | H1 | I2 | I3 | I3en | I4g | I4i | I7i | I7ie | I8ge | Im4gn | Is4gen
- **Accelerated Computing:** G4ad | G4dn | G5 | G6 | G6e | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P3 | P4d | P5 | P5e | P5en | P6-B200 | Trn1 | Trn1n | Trn2
- **High Performance Computing:** Hpc6a | Hpc6id | Hpc7a
- **Previous Generation:** A1 | C4 | I2 | M4 | R3 | R4

US West (N. California) — us-west-1

The following instance types are available in US West (N. California).

- **General Purpose:** M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7g | M7gd | M7i | M7i-flex | M8g | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6in | C7g | C7gd | C7i | C7i-flex | C8g | C8gn
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5d | R5n | R6a | R6g | R6gd | R6i | R7g | R7gd | R7i | R8g | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | I2 | I3 | I3en | I4i | I7ie
- **Accelerated Computing:** G4dn | Inf1 | P5 | P5en
- **Previous Generation:** C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

US West (Oregon) — us-west-2

The following instance types are available in US West (Oregon).

- **General Purpose:** A1 | M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | M8gd | M8i | M8i-flex | Mac1 | Mac2 | Mac2-m1ultra | Mac2-m2 | Mac2-m2pro | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7gn | C7i | C7i-flex | C8g | C8gd | C8gn
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | R8gd | R8i | R8i-flex | U-3tb1 | U-6tb1 | U7i-6tb | U7i-8tb | U7i-12tb | U7in-16tb | U7in-24tb | U7in-32tb | X1 | X1e | X2gd | X2idn | X2iedn | X2iezn | X8g | z1d
- **Storage Optimized:** D2 | D3 | D3en | H1 | I2 | I3 | I3en | I4g | I4i | I7i | I7ie | I8g | I8ge | Im4gn | Is4gen
- **Accelerated Computing:** DL1 | DL2q | F1 | F2 | G4ad | G4dn | G5 | G5g | G6 | G6e | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P3 | P3dn | P4d | P4de | P5 | P5e | P5en | P6-B200 | Trn1 | Trn1n | VT1
- **Previous Generation:** A1 | C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

Africa (Cape Town) — af-south-1

The following instance types are available in Africa (Cape Town).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M7g | T3 | T4g
- **Compute Optimized:** C5 | C5a | C5ad | C5d | C5n | C6g | C6i | C6in | C7g
- **Memory Optimized:** R5 | R5d | R5dn | R5n | R6g | R6i | R7g | R7gd | U-6tb1 | X1 | X1e | X2idn | X2iedn
- **Storage Optimized:** D2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn | Inf1

Asia Pacific (Hong Kong) — ap-east-1

The following instance types are available in Asia Pacific (Hong Kong).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M7g | M7i | M7i-flex | M8g | T3 | T4g

- **Compute Optimized:** C5 | C5a | C5d | C5n | C6a | C6g | C6gn | C6i | C6in | C7g | C7i | C7i-flex
- **Memory Optimized:** R5 | R5d | R5n | R6g | R6i | R7g | R7gd | R8g | U-3tb1 | X1
- **Storage Optimized:** D2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn | Inf1

Asia Pacific (Hyderabad) — ap-south-2

The following instance types are available in Asia Pacific (Hyderabad).

- **General Purpose:** M5 | M5d | M6a | M6g | M6gd | M6i | M7g | M8g | T3 | T4g
- **Compute Optimized:** C5 | C5d | C6a | C6g | C6i | C6in | C7g | C8g
- **Memory Optimized:** R5 | R5d | R6a | R6g | R6i | R7g | R7gd | R7i | U-6tb1 | X2idn | X2iedn
- **Storage Optimized:** I3 | I3en | I4i

Asia Pacific (Jakarta) — ap-southeast-3

The following instance types are available in Asia Pacific (Jakarta).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M7g | M7i | M7i-flex | T3 | T4g
- **Compute Optimized:** C5 | C5d | C5n | C6g | C6gd | C6gn | C6in | C7g | C7gd | C7i | C8g
- **Memory Optimized:** R5 | R5d | R6g | R6gd | R7g | R7gd | R7i | R8g | U-6tb1 | X2idn | X2iedn
- **Storage Optimized:** D3en | I3 | I3en | I4i | I7ie
- **Accelerated Computing:** G5 | P5 | P5e | P5en

Asia Pacific (Malaysia) — ap-southeast-5

The following instance types are available in Asia Pacific (Malaysia).

- **General Purpose:** M6g | M6gd | M6i | M6id | M7g | M7gd | M7i | M7i-flex | T3 | T4g
- **Compute Optimized:** C6g | C6gn | C6i | C6id | C6in | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R6g | R6i | R6id | R7g | R7gd | R7i | R8g | X2idn | X2iedn
- **Storage Optimized:** I3en | I4i | I7i | I7ie

- **Accelerated Computing:** G6 | Gr6

Asia Pacific (Melbourne) — ap-southeast-4

The following instance types are available in Asia Pacific (Melbourne).

- **General Purpose:** M5 | M5d | M6g | M6gd | M7g | M7i | M7i-flex | T3 | T4g
- **Compute Optimized:** C5 | C5d | C6g | C6in
- **Memory Optimized:** R5 | R5d | R6g | R7g | R7i | X2idn
- **Storage Optimized:** I3 | I3en | I4i
- **Accelerated Computing:** Trn1

Asia Pacific (Mumbai) — ap-south-1

The following instance types are available in Asia Pacific (Mumbai).

- **General Purpose:** A1 | M4 | M5 | M5a | M5ad | M5d | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7g | M7gd | M7i | M7i-flex | M8g | Mac1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6in | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5d | R5n | R6a | R6g | R6gd | R6i | R6id | R7g | R7gd | R7i | R8g | U-6tb1 | X1 | X1e | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | D3 | I2 | I3 | I3en | I4i | I8g | I4gen
- **Accelerated Computing:** G4dn | G5 | G6 | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P4d | P5 | P5en | Trn1
- **Previous Generation:** A1 | C4 | I2 | M4 | R3 | R4

Asia Pacific (New Zealand) — ap-southeast-6

The following instance types are available in Asia Pacific (New Zealand).

- **General Purpose:** M6g | M6gd | M6i | M6id | M7g | M7gd | M7i | M7i-flex | T3 | T4g
- **Compute Optimized:** C6g | C6gn | C6i | C6id | C7g | C7i | C7i-flex
- **Memory Optimized:** R6g | R6i | R6id | R7g | R7gd | R7i
- **Storage Optimized:** I3en | I4i

Asia Pacific (Osaka) — ap-northeast-3

The following instance types are available in Asia Pacific (Osaka).

- **General Purpose:** M4 | M5 | M5d | M6g | M6gd | M6i | M7g | M7i | M7i-flex | T2 | T3 | T4g
- **Compute Optimized:** C4 | C5 | C5d | C5n | C6g | C6gd | C6gn | C6i | C6in | C7g | C7gd | C7i
- **Memory Optimized:** R4 | R5 | R5d | R6g | R6gd | R6i | R7g | R7gd | R7i | U-6tb1 | X1 | X1e | X2idn | X2iedn
- **Storage Optimized:** D2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn
- **Previous Generation:** C4 | M4 | R4

Asia Pacific (Seoul) — ap-northeast-2

The following instance types are available in Asia Pacific (Seoul).

- **General Purpose:** M4 | M5 | M5a | M5ad | M5d | M5zn | M6g | M6gd | M6i | M6id | M7g | M7gd | M7i | M7i-flex | M8g | Mac1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6g | R6gd | R6i | R6id | R7g | R7gd | R7i | R8g | U-6tb1 | U7i-6tb | U7i-8tb | U7i-12tb | U7in-16tb | X1 | X1e | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | I2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn | G5 | G5g | G6 | G6e | Gr6 | Inf1 | Inf2 | P3 | P4d | P5en
- **Previous Generation:** C4 | I2 | M4 | R3 | R4

Asia Pacific (Singapore) — ap-southeast-1

The following instance types are available in Asia Pacific (Singapore).

- **General Purpose:** A1 | M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7g | M7gd | M7i | M7i-flex | M8g | Mac1 | Mac2 | T1 | T2 | T3 | T3a | T4g

- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7g | R7gd | R7i | R8g | U-3tb1 | U-6tb1 | X1 | X1e | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | D3 | D3en | I2 | I3 | I3en | I4g | I4i | I4gn | I4gen
- **Accelerated Computing:** G4dn | G5g | Inf1 | Inf2 | P3 | P4de
- **High Performance Computing:** Hpc6a
- **Previous Generation:** A1 | C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

Asia Pacific (Sydney) — ap-southeast-2

The following instance types are available in Asia Pacific (Sydney).

- **General Purpose:** A1 | M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | Mac1 | Mac2-m2 | Mac2-m2pro | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7g | R7gd | R7i | R8g | U-3tb1 | U-6tb1 | U7in-16tb | X1 | X1e | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | D3 | D3en | I2 | I3 | I3en | I4g | I4i | I7i | I7ie | I8g | I4gn | I4gen
- **Accelerated Computing:** F1 | F2 | G4dn | G5 | G6 | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P3 | P4d | P5 | P5e | Trn1
- **High Performance Computing:** Hpc6a
- **Previous Generation:** A1 | C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

Asia Pacific (Taipei) — ap-east-2

The following instance types are available in Asia Pacific (Taipei).

- **General Purpose:** M6g | M6gd | M6i | M6id | M7g | M7gd | M7i | M7i-flex | T3 | T4g
- **Compute Optimized:** C6g | C6gn | C6i | C6id | C7g | C7i | C7i-flex
- **Memory Optimized:** R6g | R6i | R6id | R7g | R7gd | R7i

- **Storage Optimized:** I3en | I4i

Asia Pacific (Thailand) — ap-southeast-7

The following instance types are available in Asia Pacific (Thailand).

- **General Purpose:** M6g | M6gd | M6i | M6id | M7g | M7gd | M7i | M7i-flex | T3 | T4g
- **Compute Optimized:** C6g | C6gn | C6i | C6id | C7g | C7i | C7i-flex | C8g
- **Memory Optimized:** R6g | R6i | R6id | R7g | R7gd | R7i | X2idn
- **Storage Optimized:** I3en | I4i

Asia Pacific (Tokyo) — ap-northeast-1

The following instance types are available in Asia Pacific (Tokyo).

- **General Purpose:** A1 | M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | M8gd | Mac1 | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7gn | C7i | C7i-flex | C8g | C8gd
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | R8gd | U-3tb1 | U-6tb1 | X1 | X1e | X2idn | X2iedn | X2iezn | z1d
- **Storage Optimized:** D2 | D3 | D3en | I2 | I3 | I3en | I4i | I7i | I7ie | Im4gn | Is4gen
- **Accelerated Computing:** G4ad | G4dn | G5 | G5g | G6 | G6e | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P3 | P3dn | P4d | P4de | P5 | P5en | VT1
- **High Performance Computing:** Hpc7g
- **Previous Generation:** A1 | C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

Canada (Central) — ca-central-1

The following instance types are available in Canada (Central).

- **General Purpose:** M4 | M5 | M5a | M5ad | M5d | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7g | M7i | M7i-flex | Mac2-m2 | T2 | T3 | T3a | T4g

- **Compute Optimized:** C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R4 | R5 | R5a | R5ad | R5b | R5d | R5n | R6a | R6g | R6gd | R6i | R7g | R7i | U-3tb1 | U-6tb1 | X1 | X1e | X2idn | X2iedn
- **Storage Optimized:** D2 | D3 | I3 | I3en | I4g | I4i | I8g | Im4gn | Is4gen
- **Accelerated Computing:** G4ad | G4dn | G5 | G6 | G6f | Gr6 | Gr6f | Inf1 | P3 | P4d | P5
- **Previous Generation:** C4 | M4 | R4

Canada West (Calgary) — ca-west-1

The following instance types are available in Canada West (Calgary).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M6id | T3 | T4g
- **Compute Optimized:** C5 | C6g | C6gn | C6i | C6id | C6in | C7g
- **Memory Optimized:** R5 | R6g | R6i | R6id | R7g
- **Storage Optimized:** I3en | I4i

China (Beijing) — cn-north-1

The following instance types are available in China (Beijing).

- **General Purpose:** M1 | M3 | M4 | M5 | M5a | M5d | M6g | M6i | M7g | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C3 | C4 | C5 | C5a | C5d | C6g | C6gn | C6i | C7g
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5d | R6g | R6gd | R6i | R7g | U-6tb1 | X1 | X2idn | X2iedn
- **Storage Optimized:** D2 | I2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn | G5 | Inf1 | P3
- **Previous Generation:** C3 | C4 | I2 | M1 | M3 | M4 | R3 | R4 | T1

China (Ningxia) — cn-northwest-1

The following instance types are available in China (Ningxia).

- **General Purpose:** M4 | M5 | M5a | M5d | M6g | M6i | M7g | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5d | C6g | C6gd | C6gn | C6i | C6in | C7g
- **Memory Optimized:** R4 | R5 | R5a | R5d | R6g | R6gd | R6i | R7g | U-6tb1 | X1 | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn | G5 | Inf1 | P3
- **Previous Generation:** C4 | M4 | R4

Europe (Frankfurt) — eu-central-1

The following instance types are available in Europe (Frankfurt).

- **General Purpose:** A1 | M3 | M4 | M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | M8gd | Mac1 | Mac2-m2 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7i | C7i-flex | C8g | C8gd
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | R8gd | U-3tb1 | U-6tb1 | U7i-6tb | U7i-8tb | U7in-16tb | X1 | X1e | X2idn | X2iedn | X8g | z1d
- **Storage Optimized:** D2 | D3 | D3en | I2 | I3 | I3en | I4i | I7i | I7ie | I8g | Im4gn | Is4gen
- **Accelerated Computing:** DL2q | F1 | G4ad | G4dn | G5 | G5g | G6 | G6e | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P3 | P4d | P4de
- **Previous Generation:** A1 | C3 | C4 | I2 | M3 | M4 | R3 | R4

Europe (Ireland) — eu-west-1

The following instance types are available in Europe (Ireland).

- **General Purpose:** A1 | M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | Mac1 | Mac2 | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7gn | C7i | C7i-flex | C8g

- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | U-3tb1 | U-6tb1 | X1 | X1e | X2gd | X2idn | X2iedn | X2iezn | z1d
- **Storage Optimized:** D2 | D3 | D3en | H1 | I2 | I3 | I3en | I4g | I4i | I7ie | I8g | Im4gn | Is4gen
- **Accelerated Computing:** F1 | G4ad | G4dn | G5 | Inf1 | Inf2 | P3 | P3dn | P4d | VT1
- **High Performance Computing:** Hpc7a | Hpc7g
- **Previous Generation:** A1 | C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

Europe (London) — eu-west-2

The following instance types are available in Europe (London).

- **General Purpose:** M4 | M5 | M5a | M5ad | M5d | M6a | M6g | M6gd | M6i | M6id | M7g | M7i | M7i-flex | M8g | Mac1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R4 | R5 | R5a | R5ad | R5b | R5d | R5n | R6g | R6gd | R6i | R6id | R7g | R7gd | R7i | U-6tb1 | X1 | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | D3 | I3 | I3en | I4i | I7i | I7ie | Im4gn | Is4gen
- **Accelerated Computing:** F1 | F2 | G4ad | G4dn | G5 | G6 | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P3 | P5 | P5e
- **Previous Generation:** C4 | M4 | R4

Europe (Milan) — eu-south-1

The following instance types are available in Europe (Milan).

- **General Purpose:** M5 | M5a | M5d | M6a | M6g | M6gd | M6i | T3 | T3a | T4g
- **Compute Optimized:** C5 | C5a | C5ad | C5d | C5n | C6g | C6gn | C6i | C6in | C7g
- **Memory Optimized:** R5 | R5a | R5b | R5d | R5dn | R5n | R6g | R6i | R7g | R7gd | R7i | U-3tb1 | U-6tb1 | X2idn | X2iedn
- **Storage Optimized:** D2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn | Inf1

Europe (Paris) — eu-west-3

The following instance types are available in Europe (Paris).

- **General Purpose:** M5 | M5a | M5ad | M5d | M6a | M6g | M6gd | M6i | M7g | M7gd | M7i | M7i-flex | T2 | T3 | T3a | T4g
- **Compute Optimized:** C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7gd | C7i | C7i-flex
- **Memory Optimized:** R4 | R5 | R5a | R5ad | R5d | R5dn | R5n | R6g | R6gd | R6i | R7g | R7i | U-6tb1 | X1 | X2idn | X2iedn
- **Storage Optimized:** D2 | D3 | I3 | I3en | I4i | Im4gn | Is4gen
- **Accelerated Computing:** G4dn | G6 | Gr6 | Inf1 | Inf2
- **High Performance Computing:** Hpc6id | Hpc7a
- **Previous Generation:** R4

Europe (Spain) — eu-south-2

The following instance types are available in Europe (Spain).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | M8gd | M8i | M8i-flex | T3 | T4g
- **Compute Optimized:** C5 | C5d | C6g | C6gd | C6in | C7a | C7g | C7gd | C7i | C7i-flex | C8g | C8gd
- **Memory Optimized:** R5 | R5d | R6g | R6gd | R6id | R7a | R7g | R7gd | R7i | R8g | R8gd | R8i | R8i-flex | U-6tb1 | X2idn | X2iedn
- **Storage Optimized:** I3 | I3en | I4i | I7ie | I8g | Im4gn
- **Accelerated Computing:** G5g | G6 | G6e | Gr6 | P5en

Europe (Stockholm) — eu-north-1

The following instance types are available in Europe (Stockholm).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | M8g | Mac1 | T3 | T4g

- **Compute Optimized:** C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6in | C7a | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R5 | R5b | R5d | R5dn | R5n | R6g | R6gd | R6i | R6idn | R6in | R7a | R7g | R7gd | R7i | R8g | U-6tb1 | X2idn | X2iedn
- **Storage Optimized:** D2 | I3 | I3en | I4i | I7ie
- **Accelerated Computing:** G4dn | G5 | G6 | G6e | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P5 | P5e | P5en
- **High Performance Computing:** Hpc6a | Hpc6id | Hpc7a

Europe (Zurich) — eu-central-2

The following instance types are available in Europe (Zurich).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M6id | M6idn | M6in | M7g | T3 | T4g
- **Compute Optimized:** C5 | C5d | C6g | C6gd | C6in | C7g | C7i | C7i-flex
- **Memory Optimized:** R5 | R5d | R6g | R6gd | R6i | R7g | U-3tb1 | U-6tb1 | X2idn
- **Storage Optimized:** D3 | I3 | I3en | I4i
- **Accelerated Computing:** G6 | Gr6

Israel (Tel Aviv) — il-central-1

The following instance types are available in Israel (Tel Aviv).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M6id | M7g | T3 | T3a | T4g
- **Compute Optimized:** C5 | C5d | C6g | C6gn | C6i | C6id | C6in | C7g
- **Memory Optimized:** R5 | R5d | R6g | R6i | R6id | R7g | R7gd | X2idn
- **Storage Optimized:** D3 | I3 | I3en | I4i
- **Accelerated Computing:** G5 | P4de

Mexico (Central) — mx-central-1

The following instance types are available in Mexico (Central).

- **General Purpose:** M6g | M6gd | M6i | M6id | M7g | M7gd | M7i | M7i-flex | T3 | T4g
- **Compute Optimized:** C6g | C6gn | C6i | C6id | C7g | C7i | C7i-flex

- **Memory Optimized:** R6g | R6i | R6id | R7g | R7gd | R7i
- **Storage Optimized:** I3en | I4i

Middle East (Bahrain) — me-south-1

The following instance types are available in Middle East (Bahrain).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M7g | T3 | T4g
- **Compute Optimized:** C5 | C5a | C5ad | C5d | C5n | C6g | C6gn | C6i | C6in | C7g
- **Memory Optimized:** R5 | R5d | R6g | R6i | R7g | X2idn
- **Storage Optimized:** D2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn | Inf1

Middle East (UAE) — me-central-1

The following instance types are available in Middle East (UAE).

- **General Purpose:** M5 | M5d | M6g | M6gd | M6i | M7g | M7gd | M7i | T3 | T4g
- **Compute Optimized:** C5 | C5d | C6g | C6in | C7i
- **Memory Optimized:** R5 | R5d | R6g | R6i | R7g | R7gd | X2idn | X2iezn
- **Storage Optimized:** I3 | I3en | I4i
- **Accelerated Computing:** G5 | G6

South America (São Paulo) — sa-east-1

The following instance types are available in South America (São Paulo).

- **General Purpose:** M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5zn | M6a | M6g | M6gd | M6i | M6id | M7g | M7gd | M7i | M7i-flex | M8g | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7gd | C7i | C7i-flex | C8g
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5n | R6g | R6gd | R6i | R7g | R7i | U-3tb1 | U-6tb1 | X1 | X1e | X2idn | X2iedn
- **Storage Optimized:** I3 | I3en | I4g | I4i

- **Accelerated Computing:** G4dn | G5 | G6 | G6f | Gr6 | Gr6f | Inf1 | Inf2 | P4d | P5 | P5e
- **Previous Generation:** C1 | C3 | C4 | M1 | M2 | M3 | M4 | R3 | R4 | T1

AWS GovCloud (US-East) — us-gov-east-1

The following instance types are available in AWS GovCloud (US-East).

- **General Purpose:** M5 | M5a | M5d | M5dn | M5n | M6g | M6gd | M6i | M7g | M7i | M7i-flex | T3 | T3a | T4g
- **Compute Optimized:** C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6in | C7g | C7gd | C7i
- **Memory Optimized:** R5 | R5a | R5d | R5dn | R5n | R6g | R6gd | R6i | R7g | R7gd | R7i | U-6tb1 | X1 | X1e | X2idn | X2iedn
- **Storage Optimized:** I3 | I3en | I4i | I7ie
- **Accelerated Computing:** G4dn | G6 | Inf1 | P3dn
- **High Performance Computing:** Hpc6a

AWS GovCloud (US-West) — us-gov-west-1

The following instance types are available in AWS GovCloud (US-West).

- **General Purpose:** M5 | M5a | M5ad | M5d | M5dn | M5n | M6g | M6gd | M6i | M6id | M6idn | M6in | M7g | M7i | M7i-flex | T2 | T3 | T3a | T4g
- **Compute Optimized:** C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7gd | C7i | C7i-flex
- **Memory Optimized:** R5 | R5a | R5ad | R5d | R5dn | R5n | R6g | R6gd | R6i | R6id | R6idn | R6in | R7g | R7gd | R7i | R8g | U-3tb1 | U-6tb1 | U7in-24tb | X1 | X1e | X2idn | X2iedn
- **Storage Optimized:** D3 | I3 | I3en | I4i
- **Accelerated Computing:** F1 | G4dn | G6 | Gr6 | Inf1 | P2 | P3 | P3dn | P4d | P5 | P5en
- **High Performance Computing:** Hpc6a | Hpc6id | Hpc7a | Hpc7g
- **Previous Generation:** C4 | G3 | M4 | R4

Instances built on the AWS Nitro System

End of sale notice

The **U-9tb1**, **U-12tb1**, **U-18tb1**, and **U-24tb1** instance types are no longer available for new instance launches. If your workload requires a high-memory instance, we recommend that you use a U7i instance type instead.

The Nitro System is a collection of hardware and software components built by AWS that enable high performance, high availability, and high security.

The Nitro System provides bare metal capabilities that eliminate virtualization overhead and support workloads that require full access to host hardware. Bare metal instances are well suited for the following:

- Workloads that require access to low-level hardware features (for example, Intel VT) that are not available or fully supported in virtualized environments
- Applications that require a non-virtualized environment for licensing or support

Nitro components

The following components are part of the Nitro System:

- Nitro card
 - Local NVMe storage volumes
 - Networking hardware support
 - Management
 - Monitoring
 - Security
- Nitro security chip, integrated into the motherboard
- Nitro hypervisor - A lightweight hypervisor that manages memory and CPU allocation and delivers performance that is indistinguishable from bare metal for most workloads.

For more information, see [AWS Nitro System](#).

Network feature support

The following content summarizes key networking capabilities for each version of the Nitro System. Versions are shown in descending version release order. If you know the instance type family that your instance belongs to, you can expand the [Specifications](#) section and select your instance family. The **Platform summary** table for your instance family shows the Nitro version for your instance type in the **Hypervisor** column.

If you're not sure which instance family applies, see the [Naming conventions](#) section.

Note

Features are cumulative, meaning that newer versions of the Nitro system support the features that are listed in all prior versions, except where explicitly stated otherwise. See the [Nitro instance requirements](#) section for the minimum ENA driver and Linux kernel versions for optimal performance of Nitro v4 and later instance types.

Nitro v6

- Traffic Mirroring is not supported for this version.
- Up to 400 Gbps^{*} per network card.
- Remote direct memory access (RDMA) read and RDMA write are available with EFA for the following instance type: p6-b200.48xlarge.

Nitro v5

- Traffic Mirroring is not supported for this version.
- Up to 200 Gbps^{*} per network card.
- RDMA write is available with EFA for the following instance type: p5en.48xlarge.

Nitro v4

- Traffic Mirroring is not supported for this version.
- GPU accelerated and Trainium based instance types support up to 100 Gbps^{*} per network card for consistency. Other instance types support up to 170 Gbps^{*} per network card.

- RDMA write is available with EFA for the following instance types: p5.48xlarge, p5e.48xlarge.
- Supports ENA Express. For more information about ENA Express, including what specific instance types support it see [Improve network performance with ENA Express on your EC2 instances](#) in the *Amazon EC2 User Guide*.

Nitro v3

- Up to 100 Gbps^{*} per network card.
- Supports RDMA read with EFA for p4d(e).24xlarge instances.
- Encryption in transit.

Nitro v2

- Enhanced networking with Elastic Network Adapter (ENA).
- Traffic Mirroring.

** Your instance type might support a lower maximum bandwidth. For more information, refer to the network specifications for your instance type in the instance family pages.*

Virtualized instances

The following virtualized instances are built on the Nitro System:

Nitro v6

- **General Purpose:** M8i | M8i-flex
- **Compute Optimized:** C8gn
- **Memory Optimized:** R8i | R8i-flex
- **Storage Optimized:** I8ge
- **Accelerated Computing:** P6-B200

Nitro v5

- **General Purpose:** M8g | M8gd

- **Compute Optimized:** C7gn | C8g | C8gd
- **Memory Optimized:** R8g | R8gd | X8g
- **Storage Optimized:** I7ie | I8g
- **Accelerated Computing:** P5en | P6e-GB200 | Trn2 | Trn2u
- **High Performance Computing:** Hpc7g

Nitro v4

- **General Purpose:** M6a | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex
- **Compute Optimized:** C6a | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7i | C7i-flex
- **Memory Optimized:** R6a | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U7i-6tb | U7i-8tb | U7i-12tb | U7in-16tb | U7in-24tb | U7in-32tb | U7inh-32tb | X2idn | X2iedn
- **Storage Optimized:** I4g | I4i | I7i | Im4gn | Is4gen
- **Accelerated Computing:** F2 | G6 | G6e | G6f | Gr6 | Gr6f | Inf2 | P5 | P5e | Trn1 | Trn1n
- **High Performance Computing:** Hpc6a | Hpc6id | Hpc7a

Nitro v3

- **General Purpose:** M5dn | M5n | M5zn
- **Compute Optimized:** C5n
- **Memory Optimized:** R5dn | R5n | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | X2iezn
- **Storage Optimized:** D3 | D3en | I3en
- **Accelerated Computing:** DL1 | DL2q | G4ad | G4dn | G5 | Inf1 | P3dn | P4d | P4de | VT1

Nitro v2

- **General Purpose:** M5 | M5a | M5ad | M5d | M6g | M6gd | T3 | T3a | T4g | A1
- **Compute Optimized:** C5 | C5a | C5ad | C5d | C6g | C6gd
- **Memory Optimized:** R5 | R5a | R5ad | R5b | R5d | R6g | R6gd | X2gd | z1d
- **Accelerated Computing:** G5g
- **Previous Generation:** A1

Bare metal instances

The following bare metal instances are built on the Nitro System:

Nitro v6

- **General Purpose:** M8i
- **Compute Optimized:** C8gn
- **Memory Optimized:** R8i
- **Storage Optimized:** I8ge

Nitro v5

- **General Purpose:** M8g | M8gd
- **Compute Optimized:** C7gn | C8g | C8gd
- **Memory Optimized:** R8g | R8gd | X8g
- **Storage Optimized:** I7ie | I8g

Nitro v4

- **General Purpose:** M6a | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i
- **Compute Optimized:** C6a | C6i | C6id | C6in | C7a | C7g | C7gd | C7i
- **Memory Optimized:** R6a | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | X2idn | X2iedn
- **Storage Optimized:** I4i | I7i

Nitro v3

- **General Purpose:** M5dn | M5n | M5zn
- **Compute Optimized:** C5n
- **Memory Optimized:** R5dn | R5n | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | X2iezn
- **Storage Optimized:** I3en
- **Accelerated Computing:** G4dn

Nitro v2

- **General Purpose:** M5 | M5d | M6g | M6gd | Mac1 | Mac2 | Mac2-m1ultra | Mac2-m2 | Mac2-m2pro | A1
- **Compute Optimized:** C5 | C5d | C6g | C6gd
- **Memory Optimized:** R5 | R5b | R5d | R6g | R6gd | X2gd | z1d
- **Storage Optimized:** I3
- **Accelerated Computing:** G5g
- **Previous Generation:** A1

In most cases, when you launch a bare metal instance, the underlying server goes through its boot process, during which it verifies all hardware and firmware components. This means that it can take up to 20 minutes or more from the time the instance enters the running state until it becomes available over the network.

Nitro instance requirements

Instances built on the AWS Nitro System use ENA for enhanced networking, and storage volumes exposed as NVMe block devices. For more information about NVMe drivers, see [Install or upgrade the NVMe driver](#) in the *Amazon EBS User Guide* for Linux instances, or [AWS NVMe drivers for Windows instances](#) in the *Amazon EC2 User Guide*. For more information about ENA drivers, see [Requirements for enhanced networking with ENA](#) in the *Amazon EC2 User Guide*.

The following tabs show details about which driver or kernel versions are recommended for your operating system.

Linux

The ENA Linux kernel driver version 2.2.9g or later, from the Amazon Drivers GitHub repository is recommended for Nitro v4 instance types and required for Nitro v5 (or later) instance types for Linux distributions that expose the version information. ENA drivers for Linux are available on GitHub. For more information, see [Linux kernel driver for Elastic Network Adapter \(ENA\) family](#). For release notes, see [ENA Linux Kernel Driver Release notes](#).

Linux distributions can also incorporate ENA driver features within the kernel. However, the timing may vary for implementation within the different distributions. The Amazon Linux 2023

and Bottlerocket Linux distributions support ENA features for Nitro v4 and newer instance types by default.

Some Linux distributions might require a minimum kernel version to prevent suboptimal performance of ENA driver features on Nitro v4 and newer instance types. If your Linux distribution appears in the following table, you can verify the kernel version for your instance with the **uname** command as follows:

```
uname -r
```

Linux distribution	Minimum kernel version
Linux upstream	Kernel version 5.9
Amazon Linux 2	Kernel 4.14.186
Red Hat Enterprise Linux (RHEL)	RHEL 8.3 kernel 4.18.0-240.1.1.el8_3.AARCH
SUSE Linux Enterprise Server (SLES)	• SLE 12 SP4 kernel 4.12.14-95.99.3 • SLE 12 SP5 kernel 4.12.14-122.116.1 • SLE 15 kernel 4.12.14-150000.150.92.2 • SLE 15 SP1 kernel 4.12.14-150100.197.114.2 • SLE 15 SP2 kernel 5.3.18-24.15.1
Linux Ubuntu	20.04 kernel 5.4.0-1025-aws
DPDK	v20.11

Note

The following ENA Linux driver versions are not supported, and will result in elastic network interface attachment failures:

- ENA Linux
 - Nitro v5 – Earlier than 2.2.9
 - All Nitro versions prior to v5 – Earlier than v1.2.0
- ENA DPDK
 - Nitro v5 – Earlier than 20.11
 - All Nitro versions prior to v5 – Earlier than v1.1.1

Windows

ENA Windows driver version: 2.2.3 or later for Windows instances.

Note

The following ENA Windows drivers are not supported:

- ENA Windows: v2.2.0 or earlier

All of the current AWS Windows AMIs meet these requirements. For more information about AMI versions and release notes, see the [AWS Windows AMI reference](#).

FreeBSD

ENA FreeBSD driver version: 2.3.1 or later for FreeBSD instances.

Note

ENA FreeBSD driver versions earlier than v2.3.1 are not supported, and will result in elastic network interface attachment failures.

Linux instances with AWS Graviton processors

Linux instances with AWS Graviton processors have the following additional requirements:

- An AMI with 64-bit ARM architecture.
- Support for UEFI boot with ACPI tables and ACPI hot-plug of PCI devices.

Note

AWS Graviton processors only support Linux operating systems.

Amazon EC2 instance type quotas

Your AWS account has quotas that affect the number of instances that you can run in each Region. These quotas are grouped by purchasing option.

Quotas

- [On-Demand Instance quotas](#)
- [Spot Instance quotas](#)
- [Dedicated Host quotas](#)
- [Capacity Blocks quotas](#)

On-Demand Instance quotas

The following table shows the maximum number of vCPUs that you can provision for On-Demand Instances. Amazon EC2 automatically increases your On-Demand Instance quotas based on your usage. You can also request a quota increase. For more information, see [On-Demand Instance quotas](#) in the *Amazon EC2 User Guide*.

Name	Default	Adjustable
Running On-Demand DL instances	0	Yes
Running On-Demand F instances	0	Yes
Running On-Demand G and VT instances	0	Yes
Running On-Demand HPC instances	0	Yes
Running On-Demand High Memory instances	0	Yes
Running On-Demand Inf instances	0	Yes
Running On-Demand P instances	0	Yes
Running On-Demand Standard (A, C, D, H, I, M, R, T, Z) instances	5	Yes

Name	Default	Adjustable
Running On-Demand Trn instances	0	Yes
Running On-Demand X instances	0	Yes

Spot Instance quotas

The following table shows the maximum number of vCPUs that you can provision for Spot Instances. Amazon EC2 automatically increases your Spot Instance quotas based on your usage. You can also request a quota increase. For more information, see [Spot Instance quotas](#) in the *Amazon EC2 User Guide*.

Name	Default	Adjustable
All DL Spot Instance Requests	0	Yes
All F Spot Instance Requests	0	Yes
All G and VT Spot Instance Requests	0	Yes
All Inf Spot Instance Requests	0	Yes
All P4, P3 and P2 Spot Instance Requests	0	Yes
All P5 Spot Instance Requests	0	Yes
All Standard (A, C, D, H, I, M, R, T, Z) Spot Instance Requests	5	Yes
All Trn Spot Instance Requests	0	Yes
All X Spot Instance Requests	0	Yes

Dedicated Host quotas

The following table shows the maximum number of running Dedicated Hosts that you can allocate.

Name	Default	Adjustable
Running Dedicated a1 Hosts	0	Yes
Running Dedicated c1 Hosts	0	Yes
Running Dedicated c3 Hosts	0	Yes
Running Dedicated c4 Hosts	0	Yes
Running Dedicated c5 Hosts	0	Yes
Running Dedicated c5a Hosts	0	Yes
Running Dedicated c5d Hosts	0	Yes
Running Dedicated c5n Hosts	0	Yes
Running Dedicated c6a Hosts	0	Yes
Running Dedicated c6g Hosts	0	Yes
Running Dedicated c6gd Hosts	0	Yes
Running Dedicated c6gn Hosts	0	Yes
Running Dedicated c6i Hosts	0	Yes
Running Dedicated c6id Hosts	0	Yes
Running Dedicated c6in Hosts	0	Yes
Running Dedicated c7a Hosts	0	Yes
Running Dedicated c7g Hosts	0	Yes
Running Dedicated c7gd Hosts	0	Yes
Running Dedicated c7gn Hosts	0	Yes
Running Dedicated c7i Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated c8g Hosts	0	Yes
Running Dedicated c8gd Hosts	0	Yes
Running Dedicated c8gn Hosts	0	Yes
Running Dedicated d2 Hosts	0	Yes
Running Dedicated dl1 Hosts	0	Yes
Running Dedicated f1 Hosts	0	Yes
Running Dedicated f2 Hosts	0	Yes
Running Dedicated g4ad Hosts	0	Yes
Running Dedicated g4dn Hosts	0	Yes
Running Dedicated g5 Hosts	0	Yes
Running Dedicated g5g Hosts	0	Yes
Running Dedicated g6 Hosts	0	Yes
Running Dedicated g6e Hosts	0	Yes
Running Dedicated g6f Hosts	0	Yes
Running Dedicated gr6 Hosts	0	Yes
Running Dedicated h1 Hosts	0	Yes
Running Dedicated i2 Hosts	0	Yes
Running Dedicated i3 Hosts	0	Yes
Running Dedicated i3en Hosts	0	Yes
Running Dedicated i4g Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated i4i Hosts	0	Yes
Running Dedicated i7i Hosts	0	Yes
Running Dedicated i7ie Hosts	0	Yes
Running Dedicated i8g Hosts	0	Yes
Running Dedicated im4gn Hosts	0	Yes
Running Dedicated inf Hosts	0	Yes
Running Dedicated inf2 Hosts	0	Yes
Running Dedicated is4gen Hosts	0	Yes
Running Dedicated m1 Hosts	0	Yes
Running Dedicated m2 Hosts	0	Yes
Running Dedicated m3 Hosts	0	Yes
Running Dedicated m4 Hosts	0	Yes
Running Dedicated m5 Hosts	0	Yes
Running Dedicated m5a Hosts	0	Yes
Running Dedicated m5ad Hosts	0	Yes
Running Dedicated m5d Hosts	0	Yes
Running Dedicated m5dn Hosts	0	Yes
Running Dedicated m5n Hosts	0	Yes
Running Dedicated m5zn Hosts	0	Yes
Running Dedicated m6a Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated m6g Hosts	0	Yes
Running Dedicated m6gd Hosts	0	Yes
Running Dedicated m6i Hosts	0	Yes
Running Dedicated m6id Hosts	0	Yes
Running Dedicated m6idn Hosts	0	Yes
Running Dedicated m6in Hosts	0	Yes
Running Dedicated m7a Hosts	0	Yes
Running Dedicated m7g Hosts	0	Yes
Running Dedicated m7gd Hosts	0	Yes
Running Dedicated m7i Hosts	0	Yes
Running Dedicated m8g Hosts	0	Yes
Running Dedicated m8gd Hosts	0	Yes
Running Dedicated m8i Hosts	0	Yes
Running Dedicated mac1 Hosts	0	Yes
Running Dedicated mac2 Hosts	0	Yes
Running Dedicated mac2-m1ultra Hosts	0	Yes
Running Dedicated mac2-m2 Hosts	0	Yes
Running Dedicated mac2-m2pro Hosts	0	Yes
Running Dedicated p3 Hosts	0	Yes
Running Dedicated p3dn Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated p4d Hosts	0	Yes
Running Dedicated p4de Hosts	0	Yes
Running Dedicated p5 Hosts	0	Yes
Running Dedicated p5en Hosts	0	Yes
Running Dedicated r3 Hosts	0	Yes
Running Dedicated r4 Hosts	0	Yes
Running Dedicated r5 Hosts	0	Yes
Running Dedicated r5a Hosts	0	Yes
Running Dedicated r5ad Hosts	0	Yes
Running Dedicated r5b Hosts	0	Yes
Running Dedicated r5d Hosts	0	Yes
Running Dedicated r5dn Hosts	0	Yes
Running Dedicated r5n Hosts	0	Yes
Running Dedicated r6a Hosts	0	Yes
Running Dedicated r6g Hosts	0	Yes
Running Dedicated r6gd Hosts	0	Yes
Running Dedicated r6i Hosts	0	Yes
Running Dedicated r6id Hosts	0	Yes
Running Dedicated r6idn Hosts	0	Yes
Running Dedicated r6in Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated r7a Hosts	0	Yes
Running Dedicated r7g Hosts	0	Yes
Running Dedicated r7gd Hosts	0	Yes
Running Dedicated r7i Hosts	0	Yes
Running Dedicated r7iz Hosts	0	Yes
Running Dedicated r8g Hosts	0	Yes
Running Dedicated r8gd Hosts	0	Yes
Running Dedicated r8i Hosts	0	Yes
Running Dedicated r8i-flex Hosts	0	Yes
Running Dedicated t1 Hosts	0	Yes
Running Dedicated t2 Hosts	0	Yes
Running Dedicated t3 Hosts	0	Yes
Running Dedicated trn1 Hosts	0	Yes
Running Dedicated trn1n Hosts	0	Yes
Running Dedicated u-3tb1 Hosts	0	Yes
Running Dedicated u-6tb1 Hosts	0	Yes
Running Dedicated u7i-12tb Hosts	0	Yes
Running Dedicated u7i-6tb Hosts	0	Yes
Running Dedicated u7i-8tb Hosts	0	Yes
Running Dedicated u7in-16tb Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated u7in-24tb Hosts	0	Yes
Running Dedicated u7in-32tb Hosts	0	Yes
Running Dedicated vt1 Hosts	0	Yes
Running Dedicated x1 Hosts	0	Yes
Running Dedicated x1e Hosts	0	Yes
Running Dedicated x2gd Hosts	0	Yes
Running Dedicated x2idn Hosts	0	Yes
Running Dedicated x2iedn Hosts	0	Yes
Running Dedicated x2iezn Hosts	0	Yes
Running Dedicated x8g Hosts	0	Yes
Running Dedicated z1d Hosts	0	Yes

Capacity Blocks quotas

The following table shows the maximum number of vCPUs for concurrently active Capacity Blocks.

Name	Default	Adjustable
Concurrent P4d Capacity Blocks per account	0	Yes
Concurrent P4d Capacity Blocks per organization	0	Yes
Concurrent P5 Capacity Blocks per account	0	Yes
Concurrent P5 Capacity Blocks per organization	0	Yes
Concurrent P5e Capacity Blocks per account	0	Yes

Name	Default	Adjustable
Concurrent P5e Capacity Blocks per organization	0	Yes
Concurrent P5en Capacity Blocks per account	0	Yes
Concurrent P5en Capacity Blocks per organization	0	Yes
Concurrent Trn1 Capacity Blocks per account	0	Yes
Concurrent Trn1 Capacity Blocks per organization	0	Yes
Concurrent Trn2 Capacity Blocks per account	0	Yes
Concurrent Trn2 Capacity Blocks per organization	0	Yes

Document history for the Amazon EC2 Instance Types Guide

The following table describes the instance type releases for Amazon EC2.

Change	Description	Date
I8ge instances	New storage optimized instance family based on the latest third generation AWS Nitro SSDs and AWS Graviton4 Processor. I8ge offers up to 192 vCPUs, 1536 GB memory, and up to 120TB storage. I8ge instances are optimized for storage intensive workloads such as NoSQL databases, distributed file systems, search engines, and data analytics.	August 29, 2025
M8i-flex instances	New general purpose Flex instances that feature custom sixth generation Intel Xeon Scalable Processors (Granite Rapids). Flex instances deliver a baseline CPU performance of 40 percent with the ability to deliver up to 100 percent CPU performance for 95 percent of the time over a 24-hour period.	August 28, 2025
M8i instances	New general purpose instance types that feature custom sixth generation Intel Xeon	August 28, 2025

Scalable Processors (Granite Rapids).

[R8i-flex instances](#)

New memory optimized Flex instances that feature custom sixth generation Intel Xeon Scalable Processors (Granite Rapids) and up to 512 GiB of memory. Flex instances deliver a baseline CPU performance of 40 percent with the ability to deliver up to 100 percent CPU performance for 95 percent of the time over a 24-hour period.

August 19, 2025

[R8i instances](#)

New memory optimized instance types that feature custom sixth generation Intel Xeon Scalable Processors (Granite Rapids) and up to 3 TiB of memory.

August 19, 2025

[P5 instance new size](#)

New p5.xlarge instance type enables smaller size with one GPU.

August 12, 2025

[G6f, Gr6f instances](#)

New G6f and Gr6f instance types can lower GPU computing costs by offering fractional GPU profiles that better match your workload requirements, making GPU-accelerated workstations and graphics applications more cost-effective for use cases that don't require full GPU capacity.

July 29, 2025

[P6e-GB200 instances](#)

New GPU instances featuring NVIDIA GB200 superchips for the highest available GPU-based AI training and inference performance.

July 10, 2025

[C8gn instances](#)

New compute optimized instance types powered by AWS Graviton4 processors, and that support up to 600 Gbps networking.

June 30, 2025

[U-9tb1, U-12tb1, U-18tb1, and U-24tb1 end of sale](#)

The U-9tb1, U-12tb1, U-18tb1, and U-24tb1 instance types are no longer available for new instance launches. If your workload requires a high-memory instance, we recommend that you use a U7i instance type instead.

June 20, 2025

P6-B200 instances	New GPU instances featuring NVIDIA B200 GPUs for large scale ML Training/inference and HPC.	May 15, 2025
I7i instances	New storage optimized virtualized and bare metal instance types that feature Intel Emerald Rapids processors and third generation AWS Nitro SSD-based instance storage.	April 25, 2025
M8gd, C8gd, R8gd instances	New general purpose (M8gd), compute optimized (C8gd), and memory optimized (R8gd) virtualized and bare metal instances powered by AWS Graviton4 processors, and that feature NVMe SSD instance storage.	April 21, 2025
I7ie bare metal instances	New i7ie.metal-24x1 and i7ie.metal-48x1 bare metal instance types that feature the 5th generation Intel Xeon Scalable processors (Emerald Rapids), and the 3rd generation AWS Nitro SSDs.	April 10, 2025
GovCloud now supports R8g	The GovCloud Regions now support the R8g instance type.	March 31, 2025

GovCloud now supports R8g	The GovCloud Regions now support the R8g instance type.	March 31, 2025
New F2 instance type	F2 is now available in the following instance size: 6xlarge.	February 5, 2025
New C7i-flex and M7i-flex instance types	C7i-flex and M7i-flex are now available in 12xlarge and 16xlarge instance sizes.	January 16, 2025
U7inh-32tb instances	New high memory instance types that feature 1,920 vCPUs of 4th generation Intel Xeon Scalable Processors (Sapphire Rapids) with 32 TiB of memory.	December 16, 2024
F2 instances	New accelerated computing instance type for the latest generation FPGA instances that feature AMD-Xilinx VU47P HBM FPGA accelerators for genomics and multimedia processing.	December 11, 2024
U7i-6tb, and U7i-8tb instances	New high memory instance types that feature 4th generation Intel Xeon Scalable processors.	December 9, 2024
Trn2 instances	New accelerated instance types that feature up to 16x Trainium2 chips and deliver up to 4 times faster performance than Trn1 instances.	December 3, 2024

P5en instances	GPU instances featuring NVIDIA H200 GPUs for large scale ML Training/inference and HPC.	December 2, 2024
I8g instances	New storage optimized instances powered by AWS Graviton4 processors.	December 1, 2024
I7ie instances	New storage optimized instances that feature the 5th generation Intel Xeon Scalable processors (Emerald Rapids), and the 3rd generation AWS Nitro SSDs.	December 1, 2024
M8g instances	New general purpose instances powered by AWS Graviton4 processors.	September 25, 2024
C8g instances	New compute optimized instances powered by AWS Graviton4 processors.	September 25, 2024
X8g instances	New memory optimized instances powered by AWS Graviton4 processors.	September 18, 2024
P5e instances	New accelerated computing instance type for the latest generation GPU instances featuring NVIDIA H200 GPUs for large scale ML Training/inference and HPC.	September 9, 2024

G6e instances	New accelerated computing instances that feature up to 8 NVIDIA L40S GPUs, which offer 48 GB of GPU memory.	August 15, 2024
Nitro version features	Updated Nitro page to include features and instance types by Nitro version. Added Nitro version to the Hypervisor column in the Platform summary tables also.	July 22, 2024
R8g instances	New memory optimized instances powered by AWS Graviton4 processors and up to 1.5 TiB memory.	July 9, 2024
Mac2-m1ultra instances	New general purpose instance type that features Apple M1 Ultra processors.	June 17, 2024
U7i-12tb, U7in-16tb, U7in-24tb, and U7in-32tb instances	New high memory instance types that feature 4th generation Intel Xeon Scalable processors.	May 28, 2024
C7i-flex instances	New compute optimized instances featuring Intel Xeon Scalable processors (Sapphire Rapids). They deliver a baseline CPU performance of 40 percent with the ability to deliver up to 100 percent CPU performance for 95 percent of the time over a 24-hour period.	May 14, 2024

G6 and Gr6 instances	New high performance GPU-based instance types for deep learning inference and graphics-intensive applications.	April 4, 2024
C7gn bare metal instances	New c7gn.metal bare metal instance type powered by the latest generation AWS Graviton3E processors and the new AWS Nitro cards.	March 26, 2024
C7gd, M7gd, and R7gd bare metal instances	New bare metal instances.	March 6, 2024
DL2q instances	New instances that use Qualcomm AI100 inference accelerators, which feature 7th generation Qualcomm Edge AI cores. These instances can be used to cost-efficiently deploy deep learning (DL) workloads in the cloud or validate performance and accuracy of DL workloads that will be deployed on Qualcomm edge devices.	November 15, 2023
Mac2-m2 instances	New general purpose instance type that features Apple M2 processors.	October 25, 2023
R7i instances	New memory optimized instance types that feature 4th generation Intel Xeon Scalable processors.	October 16, 2023

C7a instances	New compute optimized instances powered by 4th generation AMD EPYC processors.	October 4, 2023
Mac2-m2pro instances	New general purpose instance type that features Apple M2 Pro processors.	September 18, 2023
C7i instances	New compute optimized instance types that feature 4th generation Intel Xeon Scalable processors.	September 14, 2023
R7a instances	New memory optimized instance types featuring 4th generation AMD EPYC 9R14 processors and up to 1536 GiB of system memory.	September 11, 2023
R7iz instances	New high-frequency and high memory instances powered by 4th generation Intel Xeon processors.	September 7, 2023
Hpc7a instances	New compute optimized instance types that feature 4th generation AMD EPYC processors. These instances support up to 300 Gbps networking bandwidth, and up to 192 CPU cores with up to 768 GB of system memory.	August 17, 2023
M7a instances	New general purpose instances powered by 4th generation AMD EPYC processors.	August 15, 2023

M7i-flex instances	New general purpose instances that offer a balance of compute, memory, and network resources for a broad spectrum of general purpose applications. They deliver a baseline CPU performance of 40 percent with the ability to deliver up to 100 percent CPU performance for 95 percent of the time over a 24-hour period.	August 2, 2023
M7i instances	New general purpose instance types that feature 4th generation Intel Xeon Scalable processors.	August 2, 2023
R7gd instances	New memory optimized instances featuring the latest AWS Graviton3 processors.	July 28, 2023
M7gd instances	New general purpose instances featuring the latest AWS Graviton3 processors.	July 28, 2023
C7gd instances	New compute optimized instances featuring the latest AWS Graviton3 processors.	July 28, 2023
P5 instances	New accelerated computing instances that feature 8 NVIDIA H100 GPUs with 640 GB high-bandwidth GPU memory, 3rd generation AMD EPYC processors, and 2 TB system memory.	July 26, 2023

Hpc7g instances	New high-performance computing instances powered by AWS Graviton3E processors that provide up to 35 percent higher vector-instruction processing performance than Graviton3 processors.	June 20, 2023
C7gn instances	New compute optimized instances powered by the latest generation AWS Graviton3E processors and the new AWS Nitro cards. These instances offer up to 200 Gbps network bandwidth.	June 20, 2023
I4g instances	New storage optimized instances that features the AWS Graviton2 processor and AWS Nitro SSDs.	May 9, 2023
Trn1n instances	New accelerated computing instances optimized for machine learning training powered by AWS Trainium accelerators.	April 13, 2023
Inf2 instances	New instances featuring AWS Inferentia2 accelerators, the latest machine learning chip designed by AWS.	April 13, 2023
Hpc6id instance	New memory optimized instance featuring 3rd generation Intel Xeon Scalable processors (Ice Lake).	November 29, 2022

R6in and R6idn instances	New memory optimized instances for network-intensive workloads.	November 28, 2022
M6in and M6idn instances	New general computing instances types.	November 28, 2022
C6in instances	New compute optimized instances ideal for running high performance computing.	November 28, 2022
Trn1 instances	New accelerated computing instances optimized for deep learning powered by AWS Trainium chips.	October 10, 2022
R6a instances	New memory optimized instances featuring 3rd generation AMD EPYC processors.	July 19, 2022
R6id instances	New memory optimized instances featuring 3rd generation Intel Xeon Scalable processors (Ice Lake).	June 9, 2022
M6id instances	New general purpose instances featuring 3rd generation Intel Xeon Scalable processors (Ice Lake).	May 26, 2022
C6id instances	New compute optimized instances featuring 3rd generation Intel Xeon Scalable processors (Ice Lake).	May 26, 2022

<u>C7g instances</u>	New compute optimized instances featuring AWS Graviton3 processors.	May 23, 2022
<u>I4i instances</u>	New storage optimized instances featuring 3rd generation Intel Xeon Scalable processors (Ice Lake).	April 27, 2022
<u>X2idn and X2iedn instances</u>	New memory optimized instances featuring Intel Xeon Scalable processors (Ice Lake).	March 10, 2022
<u>C6a instances</u>	New compute optimized instances featuring 3rd generation AMD EPYC processors (Milan).	February 14, 2022
<u>X2iezn instances</u>	New memory optimized instances featuring Intel Xeon Platinum processors (Cascade Lake).	January 26, 2022
<u>Hpc6a instances</u>	New compute optimized instances featuring AMD EPYC processors.	January 10, 2022
<u>Im4gn and Is4gen instances</u>	New storage optimized instances.	November 30, 2021
<u>M6a instances</u>	New general purpose instances powered by AMD 3rd Generation EPYC processors.	November 29, 2021

G5g instances	New accelerated computing instances featuring AWS Graviton2 processors based on 64-bit Arm architecture.	November 29, 2021
R6i instances	New memory optimized instances.	November 22, 2021
G5 instances	New accelerated computing instances featuring up to 8 NVIDIA A10G GPUs and second generation AMD EPY processors.	November 11, 2021
C6i instances	New compute optimized instances featuring Intel Xeon Scalable processors (Ice Lake).	October 28, 2021
DL1 instances	New accelerated computing instances featuring Habana Gaudi accelerators and Intel Xeon Platinum processors (Cascade Lake).	October 26, 2021
VT1 instances	New accelerated computing instances that use Xilinx Alveo U30 media accelerators and are designed for live video transcoding workloads.	September 13, 2021
M6i instances	New general purpose instances featuring third generation Intel Xeon Scalable processors (Ice Lake).	August 16, 2021

High memory virtualized instances	Virtualized high memory instances purpose-built to run large in-memory databases. The new types are u-6tb1.56xlarge, u-6tb1.112xlarge, u-9tb1.112xlarge, and u-12tb1.112xlarge.	May 11, 2021
X2gd instances	New memory optimized instances featuring an AWS Graviton2 processor based on 64-bit Arm architecture.	March 16, 2021
C6gn instances	New computed optimized instances featuring an AWS Graviton2 processor based on 64-bit Arm architecture. These instances can utilize up to 100 Gbps of network bandwidth.	December 18, 2020
G4ad instances	New instances powered by AMD Radeon Pro V520 GPUs and AMD 2nd Generation EPYC processors.	December 9, 2020
D3, D3en, M5zn, and R5b instances	New instance types built on the Nitro System.	December 1, 2020
Mac1 instances	New instances built on Apple Mac mini computers that support running macOS workloads on Amazon EC2.	November 30, 2020

P4d instances	New accelerated computing instances that provide a high-performance platform for machine learning and HPC workloads.	November 2, 2020
T4g instances	New general purpose instances powered by AWS Graviton2 processors, which are based on 64-bit Arm Neoverse cores and custom silicon designed by AWS for optimized performance and cost.	September 14, 2020
C5ad instances	New compute optimized instances featuring second-generation AMD EPYC processors.	August 13, 2020
C6gd, M6gd, and R6gd instances	New general purpose instances powered by AWS Graviton2 processors, which are based on 64-bit Arm Neoverse cores and custom silicon designed by AWS for optimized performance and cost.	July 27, 2020
C6g and R6g instances	New general purpose instances powered by AWS Graviton2 processors, which are based on 64-bit Arm Neoverse cores and custom silicon designed by AWS for optimized performance and cost.	June 10, 2020

C5a instances	New compute optimized instances featuring second-generation AMD EPYC processors.	June 4, 2020
M6g instances	New general purpose instances powered by AWS Graviton2 processors, which are based on 64-bit Arm Neoverse cores and custom silicon designed by AWS for optimized performance and cost.	May 11, 2020
Inf1 instances	New instances featuring AWS Inferentia, a machine learning inference chip designed to deliver high performance at a low cost.	December 3, 2019
G4dn instances	New instances featuring NVIDIA Tesla GPUs.	September 19, 2019
I3en instances	New I3en instances can utilize up to 100 Gbps of network bandwidth.	May 8, 2019
T3a instances	New instances featuring AMD EPYC processors.	April 24, 2019
M5ad and R5ad instances	New instances featuring AMD EPYC processors.	March 27, 2019
p3dn.24xlarge instances	New instances that provide 100 Gbps of network bandwidth.	December 7, 2018

C5n instances	New instances that provide up to 100 Gbps of network bandwidth.	November 26, 2018
A1 instances	New instances featuring Arm-based processors.	November 26, 2018
R5a instances	New instances featuring AMD EPYC processors.	November 6, 2018
M5a instances	New instances featuring AMD EPYC processors.	November 6, 2018
T3 instances	New instances featuring AMD EPYC processors.	August 21, 2018
z1d instances	New memory optimized instances.	July 25, 2018
R5 and R5d instances	New memory optimized instances.	July 25, 2018
X1e instances	New memory optimized instances.	November 28, 2017
M5 instances	New general purpose instances.	November 28, 2017
H1 instances	New storage optimized instances.	November 28, 2017
C5 instances	New compute optimized instances.	November 6, 2017
P3 instances	New accelerated computing instances.	October 25, 2017
G3 instances	New accelerated computing instances.	July 13, 2017

F1 instances	New accelerated computing instances.	April 19, 2017
I3 instances	New storage optimized instances.	February 23, 2017
R4 instances	New memory optimized instances.	November 30, 2016
P2 instances	New accelerated computing instances.	September 29, 2016
X1 instances	New memory optimized instances.	May 18, 2016
M4 instances	New general purpose instances.	June 11, 2015
D2 instances	New storage optimized instances.	March 24, 2015
C4 instances	New compute optimized instances.	January 11, 2015
T2 instances	New general purpose instances.	June 30, 2014