



Instance Types

Amazon EC2



Amazon EC2: Instance Types

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Amazon EC2 instance types

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.

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- [Current generation instances](#)
- [Previous generation instances](#)
- [Amazon EC2 instance type naming conventions](#)
- [Amazon EC2 instance type specifications](#)
- [Instances built on the AWS Nitro System](#)
- [Amazon EC2 instance type quotas](#)

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 | Mac1 | Mac2 | 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
- **Memory optimized:** R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | X1 | X2gd | X2idn | X2iedn | X2iezn | X1e | z1d
- **Storage optimized:** D2 | D3 | D3en | H1 | I3 | I3en | I4g | I4i | Im4gn | Is4gen
- **Accelerated computing:** DL1 | DL2q | F1 | G3 | G4ad | G4dn | G5 | G5g | G6 | Gr6 | Inf1 | Inf2 | P2 | P3 | P3dn | P4d | P4de | P5 | Trn1 | Trn1n | VT1
- **High-performance computing:** Hpc6a | Hpc6id | Hpc7a | Hpc7g

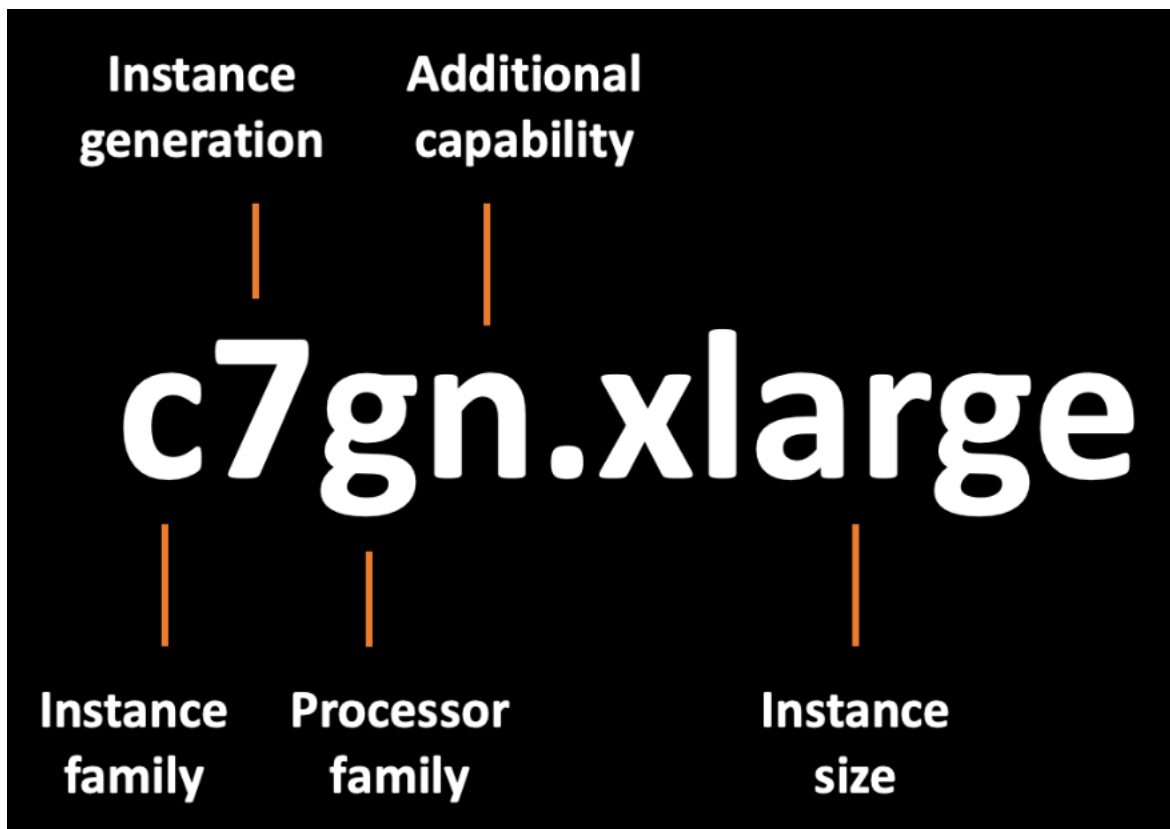
Previous generation instances

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:**

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 family, generation, processor family, additional capabilities, and size. The first position of the instance type name indicates the instance family, for example c. The second position indicates the instance generation, for example 7. The third position indicates the processor family, for example g. The remaining letters before the period indicate additional capabilities, such as instance store volumes. After the period (.) is the instance size, such as small or 4xlarge, or metal for bare metal instances.



Instance families	Processor families	Additional capabilities
<ul style="list-style-type: none"> • C – Compute optimized • D – Dense storage • F – FPGA • G – Graphics intensive 	<ul style="list-style-type: none"> • a – AMD processors • g – AWS Graviton processor • s • i – Intel processors 	<ul style="list-style-type: none"> • b – Block storage optimization • d – Instance store volumes • e – Extra storage or memory • flex – Flex instance

Instance families	Processor families	Additional capabilities
<ul style="list-style-type: none"> • 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) • 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 		<ul style="list-style-type: none"> • n – Network and EBS optimized • q – Qualcomm inference accelerators • z – High performance

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 for Linux Instances*.
- **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](#).

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- [General purpose instances](#)
- [Compute optimized instances](#)
- [Memory optimized instances](#)
- [Storage optimized instances](#)
- [Accelerated computing instances](#)
- [High-performance computing instances](#)
- [Previous generation instances](#)

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.

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- [Available sizes](#)
- [Platform summary](#)
- [Performance specifications](#)
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- [Amazon EBS specifications](#)
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Available sizes

Instance type	Available sizes
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
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

Instance type	Available sizes
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-48xl
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
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
Mac1	mac1.metal

Instance type	Available sizes
Mac2	mac2.metal
Mac2-m2	mac2-m2.metal
Mac2-m2pro	mac2-m2pro.metal
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

Platform summary

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

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
M5d	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M5dn	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
M5n	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
M5zn	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
M6a	Nitro	AMD (x86_64)	✓	✓	✓	✗	Windows Linux
M6g	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
M6gd	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
M6i	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M6id	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M6idn	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
M6in	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
M7a	Nitro	AMD (x86_64)	✓	✓	✓	✗	Windows Linux
M7g	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
M7gd	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
M7i	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
M7i-flex	Nitro	Intel (x86_64)	✗	✗	✓	✓	Windows Linux
Mac1	Nitro	Intel (x86_64_mac)	✓	✓	✗	✗	Linux
Mac2	Nitro	Apple (arm64_mac)	✓	✓	✗	✗	Linux
Mac2-m2	Nitro	Apple (arm64_mac)	✓	✓	✗	✗	Linux
Mac2-m2pro	Nitro	Apple (arm64_mac)	✓	✓	✗	✗	Linux

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
T2	Xen	Intel (x86_64)	x	x	✓	✓	Windows Linux
T3	Nitro	Intel (x86_64)	x	✓	✓	✓	Windows Linux
T3a	Nitro	AMD (x86_64)	x	x	✓	✓	Windows Linux
T4g	Nitro	AWS Graviton (arm64)	x	x	✓	x	Linux

Performance specifications

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
M5							
m5.large	x	8.00	Intel Xeon Platinum 8175	2	1	2	x
m5.xlarge	x	16.00	Intel Xeon Platinum 8175	4	2	2	x
m5.2xlarge	x	32.00	Intel Xeon Platinum 8175	8	4	2	x
m5.4xlarge	x	64.00	Intel Xeon Platinum 8175	16	8	2	x

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

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

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

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

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

M6a

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
m6a.large	X	8.00	AMD EPYC 7R13	2	1	2	X
m6a.xlarge	X	16.00	AMD EPYC 7R13	4	2	2	X
m6a.2xlarge	X	32.00	AMD EPYC 7R13	8	4	2	X
m6a.4xlarge	X	64.00	AMD EPYC 7R13	16	8	2	X
m6a.8xlarge	X	128.00	AMD EPYC 7R13	32	16	2	X
m6a.12xlarge	X	192.00	AMD EPYC 7R13	48	24	2	X
m6a.16xlarge	X	256.00	AMD EPYC 7R13	64	32	2	X
m6a.24xlarge	X	384.00	AMD EPYC 7R13	96	48	2	X
m6a.32xlarge	X	512.00	AMD EPYC 7R13	128	64	2	X
m6a.48xlarge	X	768.00	AMD EPYC 7R13	192	96	2	X
m6a.metal	X	768.00	AMD EPYC 7R13	192	96	2	X

M6g

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
m6gd.xlarge	X	16.00	AWS Graviton2 Processor	4	4	1	X
m6gd.2xlarge	X	32.00	AWS Graviton2 Processor	8	8	1	X
m6gd.4xlarge	X	64.00	AWS Graviton2 Processor	16	16	1	X
m6gd.8xlarge	X	128.00	AWS Graviton2 Processor	32	32	1	X
m6gd.12xlarge	X	192.00	AWS Graviton2 Processor	48	48	1	X
m6gd.16xlarge	X	256.00	AWS Graviton2 Processor	64	64	1	X
m6gd.metal	X	256.00	AWS Graviton2 Processor	64	64	1	X
M6i							
m6i.large	X	8.00	Intel Xeon Ice Lake	2	1	2	X
m6i.xlarge	X	16.00	Intel Xeon Ice Lake	4	2	2	X
m6i.2xlarge	X	32.00	Intel Xeon Ice Lake	8	4	2	X
m6i.4xlarge	X	64.00	Intel Xeon Ice Lake	16	8	2	X

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

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

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
m6in.24xlarge	X	384.00	Intel Xeon Ice Lake	96	48	2	X
m6in.32xlarge	X	512.00	Intel Xeon Ice Lake	128	64	2	X
m6in.metal	X	512.00	Intel Xeon Ice Lake	128	64	2	X
M7a							
m7a.medium	X	4.00	AMD EPYC 9R14	1	1	1	X
m7a.large	X	8.00	AMD EPYC 9R14	2	2	1	X
m7a.xlarge	X	16.00	AMD EPYC 9R14	4	4	1	X
m7a.2xlarge	X	32.00	AMD EPYC 9R14	8	8	1	X
m7a.4xlarge	X	64.00	AMD EPYC 9R14	16	16	1	X
m7a.8xlarge	X	128.00	AMD EPYC 9R14	32	32	1	X
m7a.12xlarge	X	192.00	AMD EPYC 9R14	48	48	1	X
m7a.16xlarge	X	256.00	AMD EPYC 9R14	64	64	1	X

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
m7g.16xlarge	X	256.00	AWS Graviton3 Processor	64	64	1	X
m7g.metal	X	256.00	AWS Graviton3 Processor	64	64	1	X
M7gd							
m7gd.medium	X	4.00	AWS Graviton3 Processor	1	1	1	X
m7gd.large	X	8.00	AWS Graviton3 Processor	2	2	1	X
m7gd.xlarge	X	16.00	AWS Graviton3 Processor	4	4	1	X
m7gd.2xlarge	X	32.00	AWS Graviton3 Processor	8	8	1	X
m7gd.4xlarge	X	64.00	AWS Graviton3 Processor	16	16	1	X
m7gd.8xlarge	X	128.00	AWS Graviton3 Processor	32	32	1	X
m7gd.12xlarge	X	192.00	AWS Graviton3 Processor	48	48	1	X
m7gd.16xlarge	X	256.00	AWS Graviton3 Processor	64	64	1	X
m7gd.metal	X	256.00	AWS Graviton3 Processor	64	64	1	X
M7i							

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
m7i.metal-24xl	x	384.00	Intel Xeon Sapphire Rapids	96	48	2	x
m7i.metal-48xl	x	768.00	Intel Xeon Sapphire Rapids	192	96	2	x
M7i-flex							
m7i-flex.large	x	8.00	Intel Xeon Sapphire Rapids	2	1	2	x
m7i-flex.xlarge	x	16.00	Intel Xeon Sapphire Rapids	4	2	2	x
m7i-flex.2xlarge	x	32.00	Intel Xeon Sapphire Rapids	8	4	2	x
m7i-flex.4xlarge	x	64.00	Intel Xeon Sapphire Rapids	16	8	2	x
m7i-flex.8xlarge	x	128.00	Intel Xeon Sapphire Rapids	32	16	2	x
Mac1							
mac1.metal	x	32.00	Intel Core i7-8700B	12	6	2	x

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
Mac2							
mac2.metal	x	16.00	Apple M1 chip with 8-core CPU	8	4	2	x
Mac2-m2							
mac2-m2.metal	x	24.00	Apple M2 with 8-core CPU	8	8	1	x
Mac2-m2pro							
mac2-m2pro.metal	x	32.00	Apple M2 Pro with 12-core CPU	12	12	1	x
T2							
t2.nano	✓	0.50	Intel Xeon Family	1	1	1	x
t2.micro	✓	1.00	Intel Xeon Family	1	1	1	x
t2.small	✓	2.00	Intel Xeon Family	1	1	1	x
t2.medium	✓	4.00	Intel Broadwell E5-2686v4	2	2	1	x
t2.large	✓	8.00	Intel Broadwell E5-2686v4	2	2	1	x
t2.xlarge	✓	16.00	Intel Broadwell E5-2686v4	4	4	1	x

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
t2.xlarge	✓	32.00	Intel Broadwell E5-2686v4	8	8	1	X
T3							
t3.nano	✓	0.50	Intel Skylake P-8175	2	1	2	X
t3.micro	✓	1.00	Intel Skylake P-8175	2	1	2	X
t3.small	✓	2.00	Intel Skylake P-8175	2	1	2	X
t3.medium	✓	4.00	Intel Skylake P-8175	2	1	2	X
t3.large	✓	8.00	Intel Skylake P-8175	2	1	2	X
t3.xlarge	✓	16.00	Intel Skylake P-8175	4	2	2	X
t3.2xlarge	✓	32.00	Intel Skylake P-8175	8	4	2	X
T3a							
t3a.nano	✓	0.50	AMD EPYC 7571	2	1	2	X
t3a.micro	✓	1.00	AMD EPYC 7571	2	1	2	X
t3a.small	✓	2.00	AMD EPYC 7571	2	1	2	X

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

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	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	✓
m5.24xlarge	25 Gigabit	x	✓	x	1	15	50	✓
m5.metal	25 Gigabit	x	✓	x	1	15	50	✓
M5a								
m5a.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
m5a.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
m5a.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
m5a.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
m5a.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 per network card	IP addresses per interface	IPv6
m5a.12xlarge	10 Gigabit	x	✓	x	1	8	30	✓
m5a.16xlarge	12 Gigabit	x	✓	x	1	15	50	✓
m5a.24xlarge	20 Gigabit	x	✓	x	1	15	50	✓
M5ad								
m5ad.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
m5ad.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
m5ad.2xlarge ₁	2.5 / 10.0	x	✓	x	1	4	15	✓
m5ad.4xlarge ₁	5.0 / 10.0	x	✓	x	1	8	30	✓
m5ad.8xlarge ₁	7.5 / 10.0	x	✓	x	1	8	30	✓
m5ad.12xlarge	10 Gigabit	x	✓	x	1	8	30	✓
m5ad.16xlarge	12 Gigabit	x	✓	x	1	15	50	✓
m5ad.24xlarge	20 Gigabit	x	✓	x	1	15	50	✓
M5d								
m5d.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m5d.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
m5d.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
m5d.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
m5d.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
m5d.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓
m5d.16xlarge	20 Gigabit	x	✓	x	1	15	50	✓
m5d.24xlarge	25 Gigabit	x	✓	x	1	15	50	✓
m5d.metal	25 Gigabit	x	✓	x	1	15	50	✓
M5dn								
m5dn.large ¹	2.1 / 25.0	x	✓	x	1	3	10	✓
m5dn.xlarge ¹	4.1 / 25.0	x	✓	x	1	4	15	✓
m5dn.2xlarge ¹	8.125 / 25.0	x	✓	x	1	4	15	✓
m5dn.4xlarge ¹	16.25 / 25.0	x	✓	x	1	8	30	✓
m5dn.8xlarge	25 Gigabit	x	✓	x	1	8	30	✓
m5dn.12xlarge	50 Gigabit	x	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m5dn.16xlarge	75 Gigabit	x	✓	x	1	15	50	✓
m5dn.24xlarge	100 Gigabit	✓	✓	x	1	15	50	✓
m5dn.metal	100 Gigabit	✓	✓	x	1	15	50	✓
M5n								
m5n.large ¹	2.1 / 25.0	x	✓	x	1	3	10	✓
m5n.xlarge ¹	4.1 / 25.0	x	✓	x	1	4	15	✓
m5n.2xlarge ¹	8.125 / 25.0	x	✓	x	1	4	15	✓
m5n.4xlarge ¹	16.25 / 25.0	x	✓	x	1	8	30	✓
m5n.8xlarge	25 Gigabit	x	✓	x	1	8	30	✓
m5n.12xlarge	50 Gigabit	x	✓	x	1	8	30	✓
m5n.16xlarge	75 Gigabit	x	✓	x	1	15	50	✓
m5n.24xlarge	100 Gigabit	✓	✓	x	1	15	50	✓
m5n.metal	100 Gigabit	✓	✓	x	1	15	50	✓
M5zn								
m5zn.large ¹	3.0 / 25.0	x	✓	x	1	3	10	✓
m5zn.xlarge ¹	5.0 / 25.0	x	✓	x	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m5zn.2xlarge ¹	10.0 / 25.0	x	✓	x	1	4	15	✓
m5zn.3xlarge ¹	15.0 / 25.0	x	✓	x	1	8	30	✓
m5zn.6xlarge	50 Gigabit	x	✓	x	1	8	30	✓
m5zn.12xlarge	100 Gigabit	✓	✓	x	1	15	50	✓
m5zn.metal	100 Gigabit	✓	✓	x	1	15	50	✓
M6a								
m6a.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
m6a.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
m6a.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
m6a.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
m6a.8xlarge	12.5 Gigabit	x	✓	x	1	8	30	✓
m6a.12xlarge	18.75 Gigabit	x	✓	x	1	8	30	✓
m6a.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
m6a.24xlarge	37.5 Gigabit	x	✓	x	1	15	50	✓
m6a.32xlarge	50 Gigabit	x	✓	x	1	15	50	✓
m6a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m6gd.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
m6gd.8xlarge	12 Gigabit	x	✓	x	1	8	30	✓
m6gd.12xlarge	20 Gigabit	x	✓	x	1	8	30	✓
m6gd.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
m6gd.metal	25 Gigabit	x	✓	x	1	15	50	✓
M6i								
m6i.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
m6i.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
m6i.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
m6i.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
m6i.8xlarge	12.5 Gigabit	x	✓	✓	1	8	30	✓
m6i.12xlarge	18.75 Gigabit	x	✓	✓	1	8	30	✓
m6i.16xlarge	25 Gigabit	x	✓	✓	1	15	50	✓
m6i.24xlarge	37.5 Gigabit	x	✓	✓	1	15	50	✓
m6i.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m6i.metal	50 Gigabit	✓	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
M6id								
m6id.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
m6id.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
m6id.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
m6id.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
m6id.8xlarge	12.5 Gigabit	x	✓	✓	1	8	30	✓
m6id.12xlarge	18.75 Gigabit	x	✓	✓	1	8	30	✓
m6id.16xlarge	25 Gigabit	x	✓	✓	1	15	50	✓
m6id.24xlarge	37.5 Gigabit	x	✓	✓	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	x	✓	x	1	3	10	✓
m6idn.xlarge ₁	6.25 / 30.0	x	✓	x	1	4	15	✓
m6idn.2xlarge ₁	12.5 / 40.0	x	✓	x	1	4	15	✓
m6idn.4xlarge ₁	25.0 / 50.0	x	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m6idn.8xlarge	50 Gigabit	x	✓	x	1	8	30	✓
m6idn.12xlarge	75 Gigabit	x	✓	x	1	8	30	✓
m6idn.16xlarge	100 Gigabit	x	✓	x	1	15	50	✓
m6idn.24xlarge	150 Gigabit	x	✓	x	1	15	50	✓
m6idn.32xlarge	200 Gigabit	✓	✓	x	2	14	50	✓
m6idn.metal	200 Gigabit	✓	✓	x	2	14	50	✓
M6in								
m6in.large ¹	3.125 / 25.0	x	✓	x	1	3	10	✓
m6in.xlarge ¹	6.25 / 30.0	x	✓	x	1	4	15	✓
m6in.2xlarge ¹	12.5 / 40.0	x	✓	x	1	4	15	✓
m6in.4xlarge ¹	25.0 / 50.0	x	✓	x	1	8	30	✓
m6in.8xlarge	50 Gigabit	x	✓	x	1	8	30	✓
m6in.12xlarge	75 Gigabit	x	✓	x	1	8	30	✓
m6in.16xlarge	100 Gigabit	x	✓	x	1	15	50	✓
m6in.24xlarge	150 Gigabit	x	✓	x	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m6in.32xlarge	200 Gigabit	✓	✓	✗	2	14	50	✓
m6in.metal	200 Gigabit	✓	✓	✗	2	14	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								

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m7gd.8xlarge	15 Gigabit	✗	✓	✗	1	8	30	✓
m7gd.12xlarge	22.5 Gigabit	✗	✓	✓	1	8	30	✓
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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m7i.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
M7i-flex								
m7i-flex.large ¹	0.39 / 12.5	x	✓	x	1	3	10	✓
m7i-flex.xlarge ¹	0.781 / 12.5	x	✓	x	1	4	15	✓
m7i-flex.2xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
m7i-flex.4xlarge ¹	3.125 / 12.5	x	✓	x	1	8	30	✓
m7i-flex.8xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
Mac1								
mac1.metal	25 Gigabit	x	✓	x	1	8	30	✓
Mac2								
mac2.metal	10 Gigabit	x	✓	x	1	8	30	✓
Mac2-m2								
mac2-m2.metal	10 Gigabit	x	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
t4g.micro ¹	0.064 / 5.0	x	✓	x	1	2	2	✓
t4g.small ¹	0.128 / 5.0	x	✓	x	1	3	4	✓
t4g.medium ¹	0.256 / 5.0	x	✓	x	1	3	6	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
t4g.large ¹	0.512 / 5.0	x	✓	x	1	3	12	✓
t4g.xlarge ¹	1.024 / 5.0	x	✓	x	1	4	15	✓
t4g.2xlarge ¹	2.048 / 5.0	x	✓	x	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 32xlarge and metal instance types that support 200 Gbps, at least 2 ENIs, each attached to a different network card, are required on the instance to achieve 200 Gbps throughput. Each ENI attached to a network card can achieve a max of 170 Gbps.

Amazon EBS specifications

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
M5					
m5.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m5.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
m5.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	default
m5.4xlarge	4750.00	593.75	18750.00	✓	default
m5.8xlarge	6800.00	850.00	30000.00	✓	default
m5.12xlarge	9500.00	1187.50	40000.00	✓	default
m5.16xlarge	13600.00	1700.00	60000.00	✓	default
m5.24xlarge	19000.00	2375.00	80000.00	✓	default
m5.metal	19000.00	2375.00	80000.00	✓	default
M5a					
m5a.large ¹	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	default
m5a.xlarge ¹	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	default
m5a.2xlarge ¹	1580.00 / 2880.00	197.50 / 360.00	8333.00 / 16000.00	✓	default
m5a.4xlarge	2880.00	360.00	16000.00	✓	default
m5a.8xlarge	4750.00	593.75	20000.00	✓	default
m5a.12xlarge	6780.00	847.50	30000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m5a.16xlarge	9500.00	1187.50	40000.00	✓	default
m5a.24xlarge	13750.00	1718.75	60000.00	✓	default
M5ad					
m5ad.large ¹	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	default
m5ad.xlarge ¹	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	default
m5ad.2xlarge ¹	1580.00 / 2880.00	197.50 / 360.00	8333.00 / 16000.00	✓	default
m5ad.4xlarge	2880.00	360.00	16000.00	✓	default
m5ad.8xlarge	4750.00	593.75	20000.00	✓	default
m5ad.12xlarge	6780.00	847.50	30000.00	✓	default
m5ad.16xlarge	9500.00	1187.50	40000.00	✓	default
m5ad.24xlarge	13750.00	1718.75	60000.00	✓	default
M5d					
m5d.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m5dn.8xlarge	6800.00	850.00	30000.00	✓	default
m5dn.12xlarge	9500.00	1187.50	40000.00	✓	default
m5dn.16xlarge	13600.00	1700.00	60000.00	✓	default
m5dn.24xlarge	19000.00	2375.00	80000.00	✓	default
m5dn.metal	19000.00	2375.00	80000.00	✓	default
M5n					
m5n.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
m5n.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
m5n.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	default
m5n.4xlarge	4750.00	593.75	18750.00	✓	default
m5n.8xlarge	6800.00	850.00	30000.00	✓	default
m5n.12xlarge	9500.00	1187.50	40000.00	✓	default
m5n.16xlarge	13600.00	1700.00	60000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m5n.24xlarge	19000.00	2375.00	80000.00	✓	default
m5n.metal	19000.00	2375.00	80000.00	✓	default
M5zn					
m5zn.large ¹	800.00 / 3170.00	100.00 / 396.25	3333.00 / 13333.00	✓	default
m5zn.xlarge ¹	1564.00 / 3170.00	195.50 / 396.25	6667.00 / 13333.00	✓	default
m5zn.2xlarge	3170.00	396.25	13333.00	✓	default
m5zn.3xlarge	4750.00	593.75	20000.00	✓	default
m5zn.6xlarge	9500.00	1187.50	40000.00	✓	default
m5zn.12xlarge	19000.00	2375.00	80000.00	✓	default
m5zn.metal	19000.00	2375.00	80000.00	✓	default
M6a					
m6a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m6a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m6a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m6a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
m6a.8xlarge	10000.00	1250.00	40000.00	✓	default
m6a.12xlarge	15000.00	1875.00	60000.00	✓	default
m6a.16xlarge	20000.00	2500.00	80000.00	✓	default
m6a.24xlarge	30000.00	3750.00	120000.00	✓	default
m6a.32xlarge	40000.00	5000.00	160000.00	✓	default
m6a.48xlarge	40000.00	5000.00	240000.00	✓	default
m6a.metal	40000.00	5000.00	240000.00	✓	default
M6g					
m6g.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
m6g.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
m6g.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
m6g.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	default
m6g.4xlarge	4750.00	593.75	20000.00	✓	default
m6g.8xlarge	9500.00	1187.50	40000.00	✓	default

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m6gd.metal	19000.00	2375.00	80000.00	✓	default
M6i					
m6i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m6i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m6i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m6i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
m6i.8xlarge	10000.00	1250.00	40000.00	✓	default
m6i.12xlarge	15000.00	1875.00	60000.00	✓	default
m6i.16xlarge	20000.00	2500.00	80000.00	✓	default
m6i.24xlarge	30000.00	3750.00	120000.00	✓	default
m6i.32xlarge	40000.00	5000.00	160000.00	✓	default
m6i.metal	40000.00	5000.00	160000.00	✓	default
M6id					
m6id.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m6id.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m6id.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m6id.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
m6id.8xlarge	10000.00	1250.00	40000.00	✓	default
m6id.12xlarge	15000.00	1875.00	60000.00	✓	default
m6id.16xlarge	20000.00	2500.00	80000.00	✓	default
m6id.24xlarge	30000.00	3750.00	120000.00	✓	default
m6id.32xlarge	40000.00	5000.00	160000.00	✓	default
m6id.metal	40000.00	5000.00	160000.00	✓	default
M6idn					
m6idn.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	default
m6idn.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	default

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m6in.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	default
m6in.8xlarge	25000.00	3125.00	100000.00	✓	default
m6in.12xlarge	37500.00	4687.50	150000.00	✓	default
m6in.16xlarge	50000.00	6250.00	200000.00	✓	default
m6in.24xlarge	75000.00	9375.00	300000.00	✓	default
m6in.32xlarge	100000.00	12500.00	400000.00	✓	default
m6in.metal	100000.00	12500.00	400000.00	✓	default
M7a					
m7a.medium ¹	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 40000.00	✓	default
m7a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m7a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m7a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m7a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
m7a.8xlarge	10000.00	1250.00	40000.00	✓	default
m7a.12xlarge	15000.00	1875.00	60000.00	✓	default
m7a.16xlarge	20000.00	2500.00	80000.00	✓	default
m7a.24xlarge	30000.00	3750.00	120000.00	✓	default
m7a.32xlarge	40000.00	5000.00	160000.00	✓	default
m7a.48xlarge	40000.00	5000.00	240000.00	✓	default
m7a.metal-48xl	40000.00	5000.00	240000.00	✓	default
M7g					
m7g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
m7g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
m7g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m7g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m7g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m7g.8xlarge	10000.00	1250.00	40000.00	✓	default
m7g.12xlarge	15000.00	1875.00	60000.00	✓	default
m7g.16xlarge	20000.00	2500.00	80000.00	✓	default
m7g.metal	20000.00	2500.00	80000.00	✓	default
M7gd					
m7gd.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
m7gd.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
m7gd.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m7gd.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m7gd.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
m7gd.8xlarge	10000.00	1250.00	40000.00	✓	default
m7gd.12xlarge	15000.00	1875.00	60000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
m7gd.16xlarge	20000.00	2500.00	80000.00	✓	default
m7gd.metal	20000.00	2500.00	80000.00	✓	default
M7i					
m7i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m7i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m7i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m7i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
m7i.8xlarge	10000.00	1250.00	40000.00	✓	default
m7i.12xlarge	15000.00	1875.00	60000.00	✓	default
m7i.16xlarge	20000.00	2500.00	80000.00	✓	default
m7i.24xlarge	30000.00	3750.00	120000.00	✓	default
m7i.48xlarge	40000.00	5000.00	240000.00	✓	default
m7i.metal-24xl	30000.00	3750.00	120000.00	✓	default
m7i.metal-48xl	40000.00	5000.00	240000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
M7i-flex					
m7i-flex.large ¹	312.00 / 10000.00	39.06 / 1250.00	2500.00 / 40000.00	✓	default
m7i-flex.xlarge ¹	625.00 / 10000.00	78.12 / 1250.00	3600.00 / 40000.00	✓	default
m7i-flex.2xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m7i-flex.4xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m7i-flex.8xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
Mac1					
mac1.metal	14000.00	1750.00	80000.00	✓	default
Mac2					
mac2.metal	10000.00	1250.00	55000.00	✓	default
Mac2-m2					
mac2-m2.metal	8000.00	1000.00	55000.00	✓	default
Mac2-m2pro					
mac2-m2pro.metal	8000.00	1000.00	55000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
T2					
T3					
t3.nano ¹	43.00 / 2085.00	5.38 / 260.62	250.00 / 11800.00	✓	default
t3.micro ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11800.00	✓	default
t3.small ¹	174.00 / 2085.00	21.75 / 260.62	1000.00 / 11800.00	✓	default
t3.medium ¹	347.00 / 2085.00	43.38 / 260.62	2000.00 / 11800.00	✓	default
t3.large ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t3.xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t3.2xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
T3a					
t3a.nano ¹	45.00 / 2085.00	5.62 / 260.62	250.00 / 11800.00	✓	default
t3a.micro ¹	90.00 / 2085.00	11.25 / 260.62	500.00 / 11800.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
t3a.small ¹	175.00 / 2085.00	21.88 / 260.62	1000.00 / 11800.00	✓	default
t3a.medium ¹	350.00 / 2085.00	43.75 / 260.62	2000.00 / 11800.00	✓	default
t3a.large ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t3a.xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t3a.2xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
T4g					
t4g.nano ¹	43.00 / 2085.00	5.38 / 260.62	250.00 / 11800.00	✓	default
t4g.micro ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11800.00	✓	default
t4g.small ¹	174.00 / 2085.00	21.75 / 260.62	1000.00 / 11800.00	✓	default
t4g.medium ¹	347.00 / 2085.00	43.38 / 260.62	2000.00 / 11800.00	✓	default
t4g.large ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
t4g.xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t4g.2xlarge ¹	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default

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.

² default indicates that instances are enabled for EBS optimization by default. supported indicates that instances can optionally be enabled for EBS optimization. For more information, see [Amazon EBS-optimized instances](#).

Instance store specifications

Instance type	Instance store volumes	Instance store type	Read / Write performance (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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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					

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓

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						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5.large	✓	Instance store not supported	X	X	✓	X
m5.xlarge	✓	Instance store not supported	X	X	✓	✓
m5.2xlarge	✓	Instance store not supported	X	X	✓	✓
m5.4xlarge	✓	Instance store not supported	X	X	✓	✓
m5.8xlarge	✓	Instance store not supported	X	X	✓	✓
m5.12xlarge	✓	Instance store not supported	X	X	✓	✓
m5.16xlarge	✓	Instance store not supported	X	X	✓	✓
m5.24xlarge	✓	Instance store not supported	X	X	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5.metal	✓	Instance store not supported	X	X	X	X
M5a						
m5a.large	✓	Instance store not supported	X	X	✓	X
m5a.xlarge	✓	Instance store not supported	X	X	✓	✓
m5a.2xlarge	✓	Instance store not supported	X	X	✓	✓
m5a.4xlarge	✓	Instance store not supported	X	X	✓	✓
m5a.8xlarge	✓	Instance store not supported	X	X	✓	✓
m5a.12xlarge	✓	Instance store not supported	X	X	✓	✓
m5a.16xlarge	✓	Instance store not supported	X	X	✓	✓

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✗	✓	✗
m5n.xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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						
m5zn.large	✓	Instance store not supported	✓	✗	✓	✗

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✓	✓	✗
m6a.xlarge	✓	Instance store not supported	✓	✓	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✗	✓	✓
m6a.48xlarge	✓	Instance store not supported	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6a.metal	✓	Instance store not supported	✓	X	X	X
M6g						
m6g.medium	✓	Instance store not supported	X	X	X	X
m6g.large	✓	Instance store not supported	X	X	X	✓
m6g.xlarge	✓	Instance store not supported	X	X	X	✓
m6g.2xlarge	✓	Instance store not supported	X	X	X	✓
m6g.4xlarge	✓	Instance store not supported	X	X	X	✓
m6g.8xlarge	✓	Instance store not supported	X	X	X	✓
m6g.12xlarge	✓	Instance store not supported	X	X	X	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6g.16xlarge	✓	Instance store not supported	X	X	X	✓
m6g.metal	✓	Instance store not supported	X	X	X	X
M6gd						
m6gd.medium	✓	✓	X	X	X	X
m6gd.large	✓	✓	X	X	X	✓
m6gd.xlarge	✓	✓	X	X	X	✓
m6gd.2xlarge	✓	✓	X	X	X	✓
m6gd.4xlarge	✓	✓	X	X	X	✓
m6gd.8xlarge	✓	✓	X	X	X	✓
m6gd.12xlarge	✓	✓	X	X	X	✓
m6gd.16xlarge	✓	✓	X	X	X	✓
m6gd.metal	✓	✓	X	X	X	X
M6i						
m6i.large	✓	Instance store not supported	✓	X	✓	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✗	✓	✓
m6i.32xlarge	✓	Instance store not supported	✓	✗	✓	✓

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

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

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7a.2xlarge	✓	Instance store not supported	✓	X	✓	X
m7a.4xlarge	✓	Instance store not supported	✓	X	✓	X
m7a.8xlarge	✓	Instance store not supported	✓	X	✓	X
m7a.12xlarge	✓	Instance store not supported	✓	X	✓	X
m7a.16xlarge	✓	Instance store not supported	✓	X	✓	X
m7a.24xlarge	✓	Instance store not supported	✓	X	✓	X
m7a.32xlarge	✓	Instance store not supported	✓	X	✓	X
m7a.48xlarge	✓	Instance store not supported	✓	X	✓	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7a.metal-48xl	✓	Instance store not supported	✓	X	X	X
M7g						
m7g.medium	✓	Instance store not supported	✓	X	X	X
m7g.large	✓	Instance store not supported	✓	X	X	X
m7g.xlarge	✓	Instance store not supported	✓	X	X	X
m7g.2xlarge	✓	Instance store not supported	✓	X	X	X
m7g.4xlarge	✓	Instance store not supported	✓	X	X	X
m7g.8xlarge	✓	Instance store not supported	✓	X	X	X
m7g.12xlarge	✓	Instance store not supported	✓	X	X	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7g.16xlarge	✓	Instance store not supported	✓	X	X	X
m7g.metal	✓	Instance store not supported	✓	X	X	X
M7gd						
m7gd.medium	✓	✓	✓	X	X	X
m7gd.large	✓	✓	✓	X	X	X
m7gd.xlarge	✓	✓	✓	X	X	X
m7gd.2xlarge	✓	✓	✓	X	X	X
m7gd.4xlarge	✓	✓	✓	X	X	X
m7gd.8xlarge	✓	✓	✓	X	X	X
m7gd.12xlarge	✓	✓	✓	X	X	X
m7gd.16xlarge	✓	✓	✓	X	X	X
m7gd.metal	✓	✓	✓	X	X	X
M7i						
m7i.large	✓	Instance store not supported	✓	X	✓	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7i.xlarge	✓	Instance store not supported	✓	X	✓	X
m7i.2xlarge	✓	Instance store not supported	✓	X	✓	X
m7i.4xlarge	✓	Instance store not supported	✓	X	✓	X
m7i.8xlarge	✓	Instance store not supported	✓	X	✓	X
m7i.12xlarge	✓	Instance store not supported	✓	X	✓	X
m7i.16xlarge	✓	Instance store not supported	✓	X	✓	X
m7i.24xlarge	✓	Instance store not supported	✓	X	✓	X
m7i.48xlarge	✓	Instance store not supported	✓	X	✓	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7i.metal-24xl	✓	Instance store not supported	✓	X	X	X
m7i.metal-48xl	✓	Instance store not supported	✓	X	X	X
M7i-flex						
m7i-flex.large	✓	Instance store not supported	✓	X	✓	X
m7i-flex.xlarge	✓	Instance store not supported	✓	X	✓	X
m7i-flex.2xlarge	✓	Instance store not supported	✓	X	✓	X
m7i-flex.4xlarge	✓	Instance store not supported	✓	X	✓	X
m7i-flex.8xlarge	✓	Instance store not supported	✓	X	✓	X
Mac1						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
mac1.metal	✓	Instance store not supported	X	X	X	X
Mac2						
mac2.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						
t2.nano	✓	Instance store not supported	X	X	X	X
t2.micro	✓	Instance store not supported	X	X	X	X

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

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

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

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.

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Available sizes

Instance type	Available sizes
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
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

Instance type	Available sizes
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

Platform summary

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
C5	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C5a	Nitro	AMD (x86_64)	✗	✗	✓	✗	Windows Linux
C5ad	Nitro	AMD (x86_64)	✗	✗	✓	✗	Windows Linux
C5d	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C5n	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
C6a	Nitro	AMD (x86_64)	✓	✓	✓	✗	Windows Linux
C6g	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
C6gd	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
C6gn	Nitro	AWS Graviton (arm64)	✗	✓	✓	✗	Linux
C6i	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
C6id	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
C6in	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
C7a	Nitro	AMD (x86_64)	✓	✓	✓	✓	Windows Linux
C7g	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
C7gd	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
C7gn	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
C7i	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux

Performance specifications

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
C5							

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
C5a							
c5a.large	X	4.00	2nd Gen AMD EPYC 7R32	2	1	2	X
c5a.xlarge	X	8.00	2nd Gen AMD EPYC 7R32	4	2	2	X
c5a.2xlarge	X	16.00	2nd Gen AMD EPYC 7R32	8	4	2	X
c5a.4xlarge	X	32.00	2nd Gen AMD EPYC 7R32	16	8	2	X
c5a.8xlarge	X	64.00	2nd Gen AMD EPYC 7R32	32	16	2	X
c5a.12xlarge	X	96.00	2nd Gen AMD EPYC 7R32	48	24	2	X
c5a.16xlarge	X	128.00	2nd Gen AMD EPYC 7R32	64	32	2	X
c5a.24xlarge	X	192.00	2nd Gen AMD EPYC 7R32	96	48	2	X
C5ad							
c5ad.large	X	4.00	2nd Gen AMD EPYC 7R32	2	1	2	X
c5ad.xlarge	X	8.00	2nd Gen AMD EPYC 7R32	4	2	2	X
c5ad.2xlarge	X	16.00	2nd Gen AMD EPYC 7R32	8	4	2	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
c5ad.4xlarge	X	32.00	2nd Gen AMD EPYC 7R32	16	8	2	X
c5ad.8xlarge	X	64.00	2nd Gen AMD EPYC 7R32	32	16	2	X
c5ad.12xlarge	X	96.00	2nd Gen AMD EPYC 7R32	48	24	2	X
c5ad.16xlarge	X	128.00	2nd Gen AMD EPYC 7R32	64	32	2	X
c5ad.24xlarge	X	192.00	2nd Gen AMD EPYC 7R32	96	48	2	X

C5d

c5d.large	X	4.00	Intel Xeon Platinum 8124M	2	1	2	X
c5d.xlarge	X	8.00	Intel Xeon Platinum 8124M	4	2	2	X
c5d.2xlarge	X	16.00	Intel Xeon Platinum 8124M	8	4	2	X
c5d.4xlarge	X	32.00	Intel Xeon Platinum 8124M	16	8	2	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
c5d.9xlarge	X	72.00	Intel Xeon Platinum 8124M	36	18	2	X
c5d.12xlarge	X	96.00	2nd Gen Intel Xeon Platinum 8275CL	48	24	2	X
c5d.18xlarge	X	144.00	Intel Xeon Platinum 8124M	72	36	2	X
c5d.24xlarge	X	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	X
c5d.metal	X	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	X
C5n							
c5n.large	X	5.25	Intel Xeon Platinum 8124M	2	1	2	X
c5n.xlarge	X	10.50	Intel Xeon Platinum 8124M	4	2	2	X
c5n.2xlarge	X	21.00	Intel Xeon Platinum 8124M	8	4	2	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
c5n.4xlarge	X	42.00	Intel Xeon Platinum 8124M	16	8	2	X
c5n.9xlarge	X	96.00	Intel Xeon Platinum 8124M	36	18	2	X
c5n.18xlarge	X	192.00	Intel Xeon Platinum 8124M	72	36	2	X
c5n.metal	X	192.00	Intel Xeon Platinum 8124M	72	36	2	X

C6a

c6a.large	X	4.00	AMD EPYC 7R13	2	1	2	X
c6a.xlarge	X	8.00	AMD EPYC 7R13	4	2	2	X
c6a.2xlarge	X	16.00	AMD EPYC 7R13	8	4	2	X
c6a.4xlarge	X	32.00	AMD EPYC 7R13	16	8	2	X
c6a.8xlarge	X	64.00	AMD EPYC 7R13	32	16	2	X
c6a.12xlarge	X	96.00	AMD EPYC 7R13	48	24	2	X

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

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

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

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
c6id.4xlarge	X	32.00	Intel Xeon Ice Lake	16	8	2	X
c6id.8xlarge	X	64.00	Intel Xeon Ice Lake	32	16	2	X
c6id.12xlarge	X	96.00	Intel Xeon Ice Lake	48	24	2	X
c6id.16xlarge	X	128.00	Intel Xeon Ice Lake	64	32	2	X
c6id.24xlarge	X	192.00	Intel Xeon Ice Lake	96	48	2	X
c6id.32xlarge	X	256.00	Intel Xeon Ice Lake	128	64	2	X
c6id.metal	X	256.00	Intel Xeon Ice Lake	128	64	2	X
C6in							
c6in.large	X	4.00	Intel Xeon Ice Lake	2	1	2	X
c6in.xlarge	X	8.00	Intel Xeon Ice Lake	4	2	2	X
c6in.2xlarge	X	16.00	Intel Xeon Ice Lake	8	4	2	X
c6in.4xlarge	X	32.00	Intel Xeon Ice Lake	16	8	2	X

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

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

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

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
c7gn.metal	x	128.00	AWS Graviton3 E Processor	64	64	1	x
C7i							
c7i.large	x	4.00	Intel Xeon Sapphire Rapids	2	1	2	x
c7i.xlarge	x	8.00	Intel Xeon Sapphire Rapids	4	2	2	x
c7i.2xlarge	x	16.00	Intel Xeon Sapphire Rapids	8	4	2	x
c7i.4xlarge	x	32.00	Intel Xeon Sapphire Rapids	16	8	2	x
c7i.8xlarge	x	64.00	Intel Xeon Sapphire Rapids	32	16	2	x
c7i.12xlarge	x	96.00	Intel Xeon Sapphire Rapids	48	24	2	x
c7i.16xlarge	x	128.00	Intel Xeon Sapphire Rapids	64	32	2	x

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
c7i.24xlarge	x	192.00	Intel Xeon Sapphire Rapids	96	48	2	x
c7i.48xlarge	x	384.00	Intel Xeon Sapphire Rapids	192	96	2	x
c7i.metal-24xl	x	192.00	Intel Xeon Sapphire Rapids	96	48	2	x
c7i.metal-48xl	x	384.00	Intel Xeon Sapphire Rapids	192	96	2	x

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
c5a.24xlarge	20 Gigabit	x	✓	x	1	15	50	✓
C5ad								
c5ad.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
c5d.metal	25 Gigabit	x	✓	x	1	15	50	✓

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
c6a.32xlarge	50 Gigabit	x	✓	x	1	15	50	✓
c6a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c6a.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
C6g								
c6g.medium ¹	0.5 / 10.0	x	✓	x	1	2	4	✓
c6g.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
c6g.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
c6g.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
c6g.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
c6g.8xlarge	12 Gigabit	x	✓	x	1	8	30	✓
c6g.12xlarge	20 Gigabit	x	✓	x	1	8	30	✓
c6g.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
c6g.metal	25 Gigabit	x	✓	x	1	15	50	✓
C6gd								
c6gd.medium ¹	0.5 / 10.0	x	✓	x	1	2	4	✓
c6gd.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
c6gd.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
c6gd.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
c6gd.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
c6gd.8xlarge	12 Gigabit	x	✓	x	1	8	30	✓
c6gd.12xlarge	20 Gigabit	x	✓	x	1	8	30	✓
c6gd.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
c6gd.metal	25 Gigabit	x	✓	x	1	15	50	✓
C6gn								
c6gn.medium ¹	1.6 / 16.0	x	✓	x	1	2	4	✓
c6gn.large ¹	3.0 / 25.0	x	✓	x	1	3	10	✓
c6gn.xlarge ¹	6.3 / 25.0	x	✓	x	1	4	15	✓
c6gn.2xlarge ¹	12.5 / 25.0	x	✓	x	1	4	15	✓
c6gn.4xlarge	25 Gigabit	x	✓	x	1	8	30	✓
c6gn.8xlarge	50 Gigabit	x	✓	x	1	8	30	✓
c6gn.12xlarge	75 Gigabit	x	✓	x	1	8	30	✓
c6gn.16xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
C6i								
c6i.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
c6id.24xlarge	37.5 Gigabit	x	✓	✓	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	x	✓	x	1	3	10	✓
c6in.xlarge ¹	6.25 / 30.0	x	✓	x	1	4	15	✓
c6in.2xlarge ¹	12.5 / 40.0	x	✓	x	1	4	15	✓
c6in.4xlarge ¹	25.0 / 50.0	x	✓	x	1	8	30	✓
c6in.8xlarge	50 Gigabit	x	✓	x	1	8	30	✓
c6in.12xlarge	75 Gigabit	x	✓	x	1	8	30	✓
c6in.16xlarge	100 Gigabit	x	✓	x	1	15	50	✓
c6in.24xlarge	150 Gigabit	x	✓	x	1	15	50	✓
c6in.32xlarge	200 Gigabit	✓	✓	x	2	14	50	✓
c6in.metal	200 Gigabit	✓	✓	x	2	14	50	✓
C7a								
c7a.medium ¹	0.39 / 12.5	x	✓	x	1	2	4	✓
c7a.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
c7a.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
c7a.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
c7a.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
c7a.8xlarge	12.5 Gigabit	x	✓	x	1	8	30	✓
c7a.12xlarge	18.75 Gigabit	x	✓	x	1	8	30	✓
c7a.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
c7a.24xlarge	37.5 Gigabit	x	✓	x	1	15	50	✓
c7a.32xlarge	50 Gigabit	x	✓	x	1	15	50	✓
c7a.48xlarge	50 Gigabit	✓	✓	x	1	15	50	✓
c7a.metal-48xl	50 Gigabit	✓	✓	x	1	15	50	✓
C7g								
c7g.medium ¹	0.52 / 12.5	x	✓	x	1	2	4	✓
c7g.large ¹	0.937 / 12.5	x	✓	x	1	3	10	✓
c7g.xlarge ¹	1.876 / 12.5	x	✓	x	1	4	15	✓
c7g.2xlarge ¹	3.75 / 15.0	x	✓	x	1	4	15	✓
c7g.4xlarge ¹	7.5 / 15.0	x	✓	x	1	8	30	✓
c7g.8xlarge	15 Gigabit	x	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
c7g.12xlarge	22.5 Gigabit	x	✓	✓	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	x	✓	x	1	2	4	✓
c7gd.large ¹	0.937 / 12.5	x	✓	x	1	3	10	✓
c7gd.xlarge ¹	1.876 / 12.5	x	✓	x	1	4	15	✓
c7gd.2xlarge ¹	3.75 / 15.0	x	✓	x	1	4	15	✓
c7gd.4xlarge ¹	7.5 / 15.0	x	✓	x	1	8	30	✓
c7gd.8xlarge	15 Gigabit	x	✓	x	1	8	30	✓
c7gd.12xlarge	22.5 Gigabit	x	✓	✓	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	x	✓	x	1	2	4	✓
c7gn.large ¹	6.25 / 30.0	x	✓	x	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
c7gn.xlarge ¹	12.5 / 40.0	x	✓	x	1	4	15	✓
c7gn.2xlarge ¹	25.0 / 50.0	x	✓	x	1	4	15	✓
c7gn.4xlarge	50 Gigabit	x	✓	x	1	8	30	✓
c7gn.8xlarge	100 Gigabit	x	✓	x	1	8	30	✓
c7gn.12xlarge	150 Gigabit	x	✓	x	1	8	30	✓
c7gn.16xlarge	200 Gigabit	✓	✓	x	1	15	50	✓
c7gn.metal	200 Gigabit	✓	✓	x	1	15	50	✓
C7i								
c7i.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
c7i.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
c7i.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
c7i.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
c7i.8xlarge	12.5 Gigabit	x	✓	x	1	8	30	✓
c7i.12xlarge	18.75 Gigabit	x	✓	✓	1	8	30	✓
c7i.16xlarge	25 Gigabit	x	✓	✓	1	15	50	✓
c7i.24xlarge	37.5 Gigabit	x	✓	✓	1	15	50	✓
c7i.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
c7i.metal-24xl	37.5 Gigabit	✗	✓	✓	1	15	50	✓
c7i.metal-48xl	50 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 32xlarge and metal instance types that support 200 Gbps, at least 2 ENIs, each attached to a different network card, are required on the instance to achieve 200 Gbps throughput. Each ENI attached to a network card can achieve a max of 170 Gbps.

Amazon EBS specifications

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
C5					
c5.large ¹	650.00 / 4750.00	81.25 / 593.75	4000.00 / 20000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c5.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 20000.00	✓	default
c5.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	10000.00 / 20000.00	✓	default
c5.4xlarge	4750.00	593.75	20000.00	✓	default
c5.9xlarge	9500.00	1187.50	40000.00	✓	default
c5.12xlarge	9500.00	1187.50	40000.00	✓	default
c5.18xlarge	19000.00	2375.00	80000.00	✓	default
c5.24xlarge	19000.00	2375.00	80000.00	✓	default
c5.metal	19000.00	2375.00	80000.00	✓	default
C5a					
c5a.large ¹	200.00 / 3170.00	25.00 / 396.25	800.00 / 13300.00	✓	default
c5a.xlarge ¹	400.00 / 3170.00	50.00 / 396.25	1600.00 / 13300.00	✓	default
c5a.2xlarge ¹	800.00 / 3170.00	100.00 / 396.25	3200.00 / 13300.00	✓	default
c5a.4xlarge ¹	1580.00 / 3170.00	197.50 / 396.25	6600.00 / 13300.00	✓	default
c5a.8xlarge	3170.00	396.25	13300.00	✓	default

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

C5d

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c5n.9xlarge	9500.00	1187.50	40000.00	✓	default
c5n.18xlarge	19000.00	2375.00	80000.00	✓	default
c5n.metal	19000.00	2375.00	80000.00	✓	default
C6a					
c6a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c6a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c6a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c6a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c6a.8xlarge	10000.00	1250.00	40000.00	✓	default
c6a.12xlarge	15000.00	1875.00	60000.00	✓	default
c6a.16xlarge	20000.00	2500.00	80000.00	✓	default
c6a.24xlarge	30000.00	3750.00	120000.00	✓	default
c6a.32xlarge	40000.00	5000.00	160000.00	✓	default
c6a.48xlarge	40000.00	5000.00	240000.00	✓	default
c6a.metal	40000.00	5000.00	240000.00	✓	default

C6g

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c6g.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
c6g.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
c6g.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
c6g.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	default
c6g.4xlarge	4750.00	593.75	20000.00	✓	default
c6g.8xlarge	9500.00	1187.50	40000.00	✓	default
c6g.12xlarge	14250.00	1781.25	50000.00	✓	default
c6g.16xlarge	19000.00	2375.00	80000.00	✓	default
c6g.metal	19000.00	2375.00	80000.00	✓	default
C6gd					
c6gd.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
c6gd.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
c6gd.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c6gd.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	default
c6gd.4xlarge	4750.00	593.75	20000.00	✓	default
c6gd.8xlarge	9500.00	1187.50	40000.00	✓	default
c6gd.12xlarge	14250.00	1781.25	50000.00	✓	default
c6gd.16xlarge	19000.00	2375.00	80000.00	✓	default
c6gd.metal	19000.00	2375.00	80000.00	✓	default
C6gn					
c6gn.medium ¹	760.00 / 9500.00	95.00 / 1187.50	2500.00 / 40000.00	✓	default
c6gn.large ¹	1235.00 / 9500.00	154.38 / 1187.50	5000.00 / 40000.00	✓	default
c6gn.xlarge ¹	2375.00 / 9500.00	296.88 / 1187.50	10000.00 / 40000.00	✓	default
c6gn.2xlarge ¹	4750.00 / 9500.00	593.75 / 1187.50	20000.00 / 40000.00	✓	default
c6gn.4xlarge	9500.00	1187.50	40000.00	✓	default
c6gn.8xlarge	19000.00	2375.00	80000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c6gn.12xlarge	28500.00	3562.50	120000.00	✓	default
c6gn.16xlarge	38000.00	4750.00	160000.00	✓	default
C6i					
c6i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c6i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c6i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c6i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c6i.8xlarge	10000.00	1250.00	40000.00	✓	default
c6i.12xlarge	15000.00	1875.00	60000.00	✓	default
c6i.16xlarge	20000.00	2500.00	80000.00	✓	default
c6i.24xlarge	30000.00	3750.00	120000.00	✓	default
c6i.32xlarge	40000.00	5000.00	160000.00	✓	default
c6i.metal	40000.00	5000.00	160000.00	✓	default
C6id					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c6id.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c6id.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c6id.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c6id.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c6id.8xlarge	10000.00	1250.00	40000.00	✓	default
c6id.12xlarge	15000.00	1875.00	60000.00	✓	default
c6id.16xlarge	20000.00	2500.00	80000.00	✓	default
c6id.24xlarge	30000.00	3750.00	120000.00	✓	default
c6id.32xlarge	40000.00	5000.00	160000.00	✓	default
c6id.metal	40000.00	5000.00	160000.00	✓	default
C6in					
c6in.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	default
c6in.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	default
c6in.2xlarge ¹	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c6in.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	default
c6in.8xlarge	25000.00	3125.00	100000.00	✓	default
c6in.12xlarge	37500.00	4687.50	150000.00	✓	default
c6in.16xlarge	50000.00	6250.00	200000.00	✓	default
c6in.24xlarge	75000.00	9375.00	300000.00	✓	default
c6in.32xlarge	100000.00	12500.00	400000.00	✓	default
c6in.metal	100000.00	12500.00	400000.00	✓	default
C7a					
c7a.medium ¹	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 40000.00	✓	default
c7a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c7a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c7a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c7a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c7a.8xlarge	10000.00	1250.00	40000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c7a.12xlarge	15000.00	1875.00	60000.00	✓	default
c7a.16xlarge	20000.00	2500.00	80000.00	✓	default
c7a.24xlarge	30000.00	3750.00	120000.00	✓	default
c7a.32xlarge	40000.00	5000.00	160000.00	✓	default
c7a.48xlarge	40000.00	5000.00	240000.00	✓	default
c7a.metal-48xl	40000.00	5000.00	240000.00	✓	default
C7g					
c7g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
c7g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
c7g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c7g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c7g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c7g.8xlarge	10000.00	1250.00	40000.00	✓	default
c7g.12xlarge	15000.00	1875.00	60000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c7g.16xlarge	20000.00	2500.00	80000.00	✓	default
c7g.metal	20000.00	2500.00	80000.00	✓	default
C7gd					
c7gd.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
c7gd.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
c7gd.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c7gd.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c7gd.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c7gd.8xlarge	10000.00	1250.00	40000.00	✓	default
c7gd.12xlarge	15000.00	1875.00	60000.00	✓	default
c7gd.16xlarge	20000.00	2500.00	80000.00	✓	default
c7gd.metal	20000.00	2500.00	80000.00	✓	default
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 optimization ²
c7gn.medium ¹	521.00 / 10000.00	65.12 / 1250.00	2083.00 / 40000.00	✓	default
c7gn.large ¹	1042.00 / 10000.00	130.25 / 1250.00	4167.00 / 40000.00	✓	default
c7gn.xlarge ¹	2083.00 / 10000.00	260.38 / 1250.00	8333.00 / 40000.00	✓	default
c7gn.2xlarge ¹	4167.00 / 10000.00	520.88 / 1250.00	16667.00 / 40000.00	✓	default
c7gn.4xlarge ¹	8333.00 / 10000.00	1041.62 / 1250.00	33333.00 / 40000.00	✓	default
c7gn.8xlarge ¹	16667.00 / 20000.00	2083.38 / 2500.00	66667.00 / 80000.00	✓	default
c7gn.12xlarge ¹	25000.00 / 30000.00	3125.00 / 3750.00	100000.00 / 120000.00	✓	default
c7gn.16xlarge ¹	33333.00 / 40000.00	4166.62 / 5000.00	133333.00 / 160000.00	✓	default
c7gn.metal ¹	33333.00 / 40000.00	4166.62 / 5000.00	133333.00 / 160000.00	✓	default
C7i					
c7i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default

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

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.

² default indicates that instances are enabled for EBS optimization by default.
supported indicates that instances can optionally be enabled for EBS optimization For more information, see [Amazon EBS-optimized instances](#).

Instance store specifications

Instance type	Instance store volumes	Instance store type	Read / Write performance (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					

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
c5d.large	1 x 50 GB	NVMe SSD	20,000 / 9,000		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
c6gd.xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
c6id.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
c7gd.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
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		✓

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	x	x	✓	x
c5.xlarge	✓	Instance store not supported	x	x	✓	✓

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

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	✓	✓	✓	X	✓	✓
c5ad.4xlarge	✓	✓	✓	X	✓	✓
c5ad.8xlarge	✓	✓	✓	X	✓	✓
c5ad.12xlarge	✓	✓	✓	X	✓	✓
c5ad.16xlarge	✓	✓	✓	X	✓	✓
c5ad.24xlarge	✓	✓	✓	X	✓	✓
C5d						
c5d.large	✓	✓	X	X	✓	X
c5d.xlarge	✓	✓	X	X	✓	✓
c5d.2xlarge	✓	✓	X	X	✓	✓
c5d.4xlarge	✓	✓	X	X	✓	✓
c5d.9xlarge	✓	✓	X	X	✓	✓
c5d.12xlarge	✓	✓	X	X	✓	✓
c5d.18xlarge	✓	✓	X	X	✓	✓
c5d.24xlarge	✓	✓	X	X	✓	✓
c5d.metal	✓	✓	X	X	X	X
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	✓	X	✓	✓
c6a.metal	✓	Instance store not supported	✓	X	X	X
C6g						
c6g.medium	✓	Instance store not supported	X	X	X	X
c6g.large	✓	Instance store not supported	X	X	X	✓
c6g.xlarge	✓	Instance store not supported	X	X	X	✓
c6g.2xlarge	✓	Instance store not supported	X	X	X	✓
c6g.4xlarge	✓	Instance store not supported	X	X	X	✓
c6g.8xlarge	✓	Instance store not supported	X	X	X	✓

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

C6gd

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

C6gn

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6gn.medium	✓	Instance store not supported	✓	X	X	X
c6gn.large	✓	Instance store not supported	✓	X	X	✓
c6gn.xlarge	✓	Instance store not supported	✓	X	X	✓
c6gn.2xlarge	✓	Instance store not supported	✓	X	X	✓
c6gn.4xlarge	✓	Instance store not supported	✓	X	X	✓
c6gn.8xlarge	✓	Instance store not supported	✓	X	X	✓
c6gn.12xlarge	✓	Instance store not supported	✓	X	X	✓
c6gn.16xlarge	✓	Instance store not supported	✓	X	X	✓
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	✓	X	✓	✓
c6i.metal	✓	Instance store not supported	✓	X	X	X
C6id						
c6id.large	✓	✓	✓	X	✓	X
c6id.xlarge	✓	✓	✓	X	✓	✓
c6id.2xlarge	✓	✓	✓	X	✓	✓
c6id.4xlarge	✓	✓	✓	X	✓	✓
c6id.8xlarge	✓	✓	✓	X	✓	✓
c6id.12xlarge	✓	✓	✓	X	✓	✓
c6id.16xlarge	✓	✓	✓	X	✓	✓
c6id.24xlarge	✓	✓	✓	X	✓	✓
c6id.32xlarge	✓	✓	✓	X	✓	✓
c6id.metal	✓	✓	✓	X	X	X
C6in						
c6in.large	✓	Instance store not supported	✓	X	✓	X

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

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

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

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

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

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

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

Memory optimized instances

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

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Available sizes

Instance type	Available sizes
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
R5n	r5n.large r5n.xlarge r5n.2xlarge r5n.4xlarge r5n.8xlarge r5n.12xlarge r5n.16xlarge r5n.24xlarge r5n.metal

Instance type	Available sizes
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-48xl
R7g	r7g.medium r7g.large r7g.xlarge r7g.2xlarge r7g.4xlarge r7g.8xlarge r7g.12xlarge r7g.16xlarge r7g.metal

Instance type	Available sizes
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
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
U-18tb1	u-18tb1.112xlarge u-18tb1.metal
U-24tb1	u-24tb1.112xlarge u-24tb1.metal
X1	x1.16xlarge x1.32xlarge
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

Instance type	Available sizes
X2iezn	x2iezn.2xlarge x2iezn.4xlarge x2iezn.6xlarge x2iezn.8xlarge x2iezn.12xlarge x2iezn.metal
X1e	x1e.xlarge x1e.2xlarge x1e.4xlarge x1e.8xlarge x1e.16xlarge x1e.32xlarge
z1d	z1d.large z1d.xlarge z1d.2xlarge z1d.3xlarge z1d.6xlarge z1d.12xlarge z1d.metal

Platform summary

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

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
R5n	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R6a	Nitro	AMD (x86_64)	✓	✓	✓	✗	Windows Linux
R6g	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
R6gd	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
R6i	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R6idn	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R6in	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R6id	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
R7a	Nitro	AMD (x86_64)	✓	✓	✓	✓	Windows Linux
R7g	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
R7gd	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
R7i	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
R7iz	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
U-3tb1	Nitro	Intel (x86_64)	✗	✗	✗	✗	Windows Linux
U-6tb1	Nitro	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
U-9tb1	Nitro	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
U-12tb1	Nitro	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
U-18tb1	Nitro	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
U-24tb1	Nitro	Intel (x86_64)	✓	✓	✗	✗	Windows Linux
X1	Xen	Intel (x86_64)	✗	✓	✓	✗	Windows Linux
X2gd	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
X2idn	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
X2iedn	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
X2iezn	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux
X1e	Xen	Intel (x86_64)	✗	✓	✓	✗	Windows Linux
z1d	Nitro	Intel (x86_64)	✓	✓	✓	✗	Windows Linux

Performance specifications

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
r5a.12xlarge	X	384.00	AMD EPYC 7571	48	24	2	X
r5a.16xlarge	X	512.00	AMD EPYC 7571	64	32	2	X
r5a.24xlarge	X	768.00	AMD EPYC 7571	96	48	2	X
R5ad							
r5ad.large	X	16.00	AMD EPYC 7571	2	1	2	X
r5ad.xlarge	X	32.00	AMD EPYC 7571	4	2	2	X
r5ad.2xlarge	X	64.00	AMD EPYC 7571	8	4	2	X
r5ad.4xlarge	X	128.00	AMD EPYC 7571	16	8	2	X
r5ad.8xlarge	X	256.00	AMD EPYC 7571	32	16	2	X
r5ad.12xlarge	X	384.00	AMD EPYC 7571	48	24	2	X
r5ad.16xlarge	X	512.00	AMD EPYC 7571	64	32	2	X
r5ad.24xlarge	X	768.00	AMD EPYC 7571	96	48	2	X
R5b							

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
r5d.2xlarge	x	64.00	Intel Xeon Platinum 8175	8	4	2	x
r5d.4xlarge	x	128.00	Intel Xeon Platinum 8175	16	8	2	x
r5d.8xlarge	x	256.00	Intel Xeon Platinum 8175	32	16	2	x
r5d.12xlarge	x	384.00	Intel Xeon Platinum 8175	48	24	2	x
r5d.16xlarge	x	512.00	Intel Xeon Platinum 8175	64	32	2	x
r5d.24xlarge	x	768.00	Intel Xeon Platinum 8175	96	48	2	x
r5d.metal	x	768.00	Intel Xeon Platinum 8175	96	48	2	x
R5dn							
r5dn.large	x	16.00	Intel Xeon Platinum 8259	2	1	2	x
r5dn.xlarge	x	32.00	Intel Xeon Platinum 8259	4	2	2	x
r5dn.2xlarge	x	64.00	Intel Xeon Platinum 8259	8	4	2	x
r5dn.4xlarge	x	128.00	Intel Xeon Platinum 8259	16	8	2	x

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
r5dn.8xlarge	X	256.00	Intel Xeon Platinum 8259	32	16	2	X
r5dn.12xlarge	X	384.00	Intel Xeon Platinum 8259	48	24	2	X
r5dn.16xlarge	X	512.00	Intel Xeon Platinum 8259	64	32	2	X
r5dn.24xlarge	X	768.00	Intel Xeon Platinum 8259	96	48	2	X
r5dn.metal	X	768.00	Intel Xeon Platinum 8259	96	48	2	X
R5n							
r5n.large	X	16.00	Intel Xeon Platinum 8259	2	1	2	X
r5n.xlarge	X	32.00	Intel Xeon Platinum 8259	4	2	2	X
r5n.2xlarge	X	64.00	Intel Xeon Platinum 8259	8	4	2	X
r5n.4xlarge	X	128.00	Intel Xeon Platinum 8259	16	8	2	X
r5n.8xlarge	X	256.00	Intel Xeon Platinum 8259	32	16	2	X
r5n.12xlarge	X	384.00	Intel Xeon Platinum 8259	48	24	2	X

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

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
r6g.metal	X	512.00	AWS Graviton2 Processor	64	64	1	X
R6gd							
r6gd.medium	X	8.00	AWS Graviton2 Processor	1	1	1	X
r6gd.large	X	16.00	AWS Graviton2 Processor	2	2	1	X
r6gd.xlarge	X	32.00	AWS Graviton2 Processor	4	4	1	X
r6gd.2xlarge	X	64.00	AWS Graviton2 Processor	8	8	1	X
r6gd.4xlarge	X	128.00	AWS Graviton2 Processor	16	16	1	X
r6gd.8xlarge	X	256.00	AWS Graviton2 Processor	32	32	1	X
r6gd.12xlarge	X	384.00	AWS Graviton2 Processor	48	48	1	X
r6gd.16xlarge	X	512.00	AWS Graviton2 Processor	64	64	1	X
r6gd.metal	X	512.00	AWS Graviton2 Processor	64	64	1	X
R6i							
r6i.large	X	16.00	Intel Xeon Ice Lake	2	1	2	X

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

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

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

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
r7a.8xlarge	X	256.00	AMD EPYC 9R14	32	32	1	X
r7a.12xlarge	X	384.00	AMD EPYC 9R14	48	48	1	X
r7a.16xlarge	X	512.00	AMD EPYC 9R14	64	64	1	X
r7a.24xlarge	X	768.00	AMD EPYC 9R14	96	96	1	X
r7a.32xlarge	X	1024.00	AMD EPYC 9R14	128	128	1	X
r7a.48xlarge	X	1536.00	AMD EPYC 9R14	192	192	1	X
r7a.metal-48xl	X	1536.00	AMD EPYC 9R14	192	192	1	X
R7g							
r7g.medium	X	8.00	AWS Graviton3 Processor	1	1	1	X
r7g.large	X	16.00	AWS Graviton3 Processor	2	2	1	X
r7g.xlarge	X	32.00	AWS Graviton3 Processor	4	4	1	X
r7g.2xlarge	X	64.00	AWS Graviton3 Processor	8	8	1	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
r7g.4xlarge	X	128.00	AWS Graviton3 Processor	16	16	1	X
r7g.8xlarge	X	256.00	AWS Graviton3 Processor	32	32	1	X
r7g.12xlarge	X	384.00	AWS Graviton3 Processor	48	48	1	X
r7g.16xlarge	X	512.00	AWS Graviton3 Processor	64	64	1	X
r7g.metal	X	512.00	AWS Graviton3 Processor	64	64	1	X
R7gd							
r7gd.medium	X	8.00	AWS Graviton3 Processor	1	1	1	X
r7gd.large	X	16.00	AWS Graviton3 Processor	2	2	1	X
r7gd.xlarge	X	32.00	AWS Graviton3 Processor	4	4	1	X
r7gd.2xlarge	X	64.00	AWS Graviton3 Processor	8	8	1	X
r7gd.4xlarge	X	128.00	AWS Graviton3 Processor	16	16	1	X
r7gd.8xlarge	X	256.00	AWS Graviton3 Processor	32	32	1	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
r7gd.12xlarge	x	384.00	AWS Graviton3 Processor	48	48	1	x
r7gd.16xlarge	x	512.00	AWS Graviton3 Processor	64	64	1	x
r7gd.metal	x	512.00	AWS Graviton3 Processor	64	64	1	x
R7i							
r7i.large	x	16.00	Intel Xeon Sapphire Rapids	2	1	2	x
r7i.xlarge	x	32.00	Intel Xeon Sapphire Rapids	4	2	2	x
r7i.2xlarge	x	64.00	Intel Xeon Sapphire Rapids	8	4	2	x
r7i.4xlarge	x	128.00	Intel Xeon Sapphire Rapids	16	8	2	x
r7i.8xlarge	x	256.00	Intel Xeon Sapphire Rapids	32	16	2	x
r7i.12xlarge	x	384.00	Intel Xeon Sapphire Rapids	48	24	2	x

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
r7iz.4xlarge	x	128.00	Intel Xeon Sapphire Rapids	16	8	2	x
r7iz.8xlarge	x	256.00	Intel Xeon Sapphire Rapids	32	16	2	x
r7iz.12xlarge	x	384.00	Intel Xeon Sapphire Rapids	48	24	2	x
r7iz.16xlarge	x	512.00	Intel Xeon Sapphire Rapids	64	32	2	x
r7iz.32xlarge	x	1024.00	Intel Xeon Sapphire Rapids	128	64	2	x
r7iz.meta-l-16xl	x	512.00	Intel Xeon Sapphire Rapids	64	32	2	x
r7iz.meta-l-32xl	x	1024.00	Intel Xeon Sapphire Rapids	128	64	2	x
U-3tb1							
u-3tb1.56xlarge	x	3072.00	Intel Xeon Platinum 8176M	224	112	2	x
U-6tb1							

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
u-6tb1.56xlarge	x	6144.00	Intel Xeon Platinum 8176M	224	224	1	x
u-6tb1.112xlarge	x	6144.00	Intel Xeon Platinum 8176M	448	224	2	x
u-6tb1.metal	x	6144.00	Intel Xeon Platinum 8176M	448	224	2	x
U-9tb1							
u-9tb1.112xlarge	x	9216.00	Intel Xeon Platinum 8176M	448	224	2	x
u-9tb1.metal	x	9216.00	Intel Xeon Platinum 8176M	448	224	2	x
U-12tb1							
u-12tb1.12xlarge	x	12288.00	Intel Xeon Platinum 8176M	448	224	2	x
u-12tb1.metal	x	12288.00	Intel Xeon Platinum 8176M	448	224	2	x
U-18tb1							

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
u-18tb1.1 12xlarge	X	18432.00	Intel Xeon Platinum 8280L	448	224	2	X
u-18tb1.metal	X	18432.00	Intel Xeon Platinum 8280L	448	224	2	X
U-24tb1							
u-24tb1.1 12xlarge	X	24576.00	Intel Xeon Platinum 8280L	448	224	2	X
u-24tb1.metal	X	24576.00	Intel Xeon Platinum 8280L	448	224	2	X
X1							
x1.16xlarge	X	976.00	Intel Xeon E7 8880 v3	64	32	2	X
x1.32xlarge	X	1952.00	Intel Xeon E7 8880 v3	128	64	2	X
X2gd							
x2gd.medium	X	16.00	AWS Graviton2 Processor	1	1	1	X
x2gd.large	X	32.00	AWS Graviton2 Processor	2	2	1	X
x2gd.xlarge	X	64.00	AWS Graviton2 Processor	4	4	1	X
x2gd.2xlarge	X	128.00	AWS Graviton2 Processor	8	8	1	X

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

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

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
x2iezn.metal	X	1536.00	Intel Xeon Platinum 8252	48	24	2	X
X1e							
x1e.xlarge	X	122.00	Intel Haswell E7 8880v3	4	2	2	X
x1e.2xlarge	X	244.00	Intel Haswell E7 8880v3	8	4	2	X
x1e.4xlarge	X	488.00	Intel Haswell E7 8880v3	16	8	2	X
x1e.8xlarge	X	976.00	Intel Haswell E7 8880v3	32	16	2	X
x1e.16xlarge	X	1952.00	Intel Haswell E7 8880v3	64	32	2	X
x1e.32xlarge	X	3904.00	Intel Haswell E7 8880v3	128	64	2	X
z1d							
z1d.large	X	16.00	Intel Xeon Platinum 8151	2	1	2	X
z1d.xlarge	X	32.00	Intel Xeon Platinum 8151	4	2	2	X
z1d.2xlarge	X	64.00	Intel Xeon Platinum 8151	8	4	2	X
z1d.3xlarge	X	96.00	Intel Xeon Platinum 8151	12	6	2	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
z1d.6xlarge	x	192.00	Intel Xeon Platinum 8151	24	12	2	x
z1d.12xlarge	x	384.00	Intel Xeon Platinum 8151	48	24	2	x
z1d.metal	x	384.00	Intel Xeon Platinum 8151	48	24	2	x

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
r5b.16xlarge	20 Gigabit	x	✓	x	1	15	50	✓
r5b.24xlarge	25 Gigabit	x	✓	x	1	15	50	✓
r5b.metal	25 Gigabit	x	✓	x	1	15	50	✓
R5d								
r5d.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
r5d.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
r5d.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
r5d.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
r5d.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
r5d.12xlarge	12 Gigabit	x	✓	x	1	8	30	✓
r5d.16xlarge	20 Gigabit	x	✓	x	1	15	50	✓
r5d.24xlarge	25 Gigabit	x	✓	x	1	15	50	✓
r5d.metal	25 Gigabit	x	✓	x	1	15	50	✓
R5dn								
r5dn.large ¹	2.1 / 25.0	x	✓	x	1	3	10	✓
r5dn.xlarge ¹	4.1 / 25.0	x	✓	x	1	4	15	✓
r5dn.2xlarge ¹	8.125 / 25.0	x	✓	x	1	4	15	✓
r5dn.4xlarge ¹	16.25 / 25.0	x	✓	x	1	8	30	✓
r5dn.8xlarge	25 Gigabit	x	✓	x	1	8	30	✓
r5dn.12xlarge	50 Gigabit	x	✓	x	1	8	30	✓
r5dn.16xlarge	75 Gigabit	x	✓	x	1	15	50	✓
r5dn.24xlarge	100 Gigabit	✓	✓	x	1	15	50	✓
r5dn.metal	100 Gigabit	✓	✓	x	1	15	50	✓
R5n								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
r5n.large ¹	2.1 / 25.0	x	✓	x	1	3	10	✓
r5n.xlarge ¹	4.1 / 25.0	x	✓	x	1	4	15	✓
r5n.2xlarge ¹	8.125 / 25.0	x	✓	x	1	4	15	✓
r5n.4xlarge ¹	16.25 / 25.0	x	✓	x	1	8	30	✓
r5n.8xlarge	25 Gigabit	x	✓	x	1	8	30	✓
r5n.12xlarge	50 Gigabit	x	✓	x	1	8	30	✓
r5n.16xlarge	75 Gigabit	x	✓	x	1	15	50	✓
r5n.24xlarge	100 Gigabit	✓	✓	x	1	15	50	✓
r5n.metal	100 Gigabit	✓	✓	x	1	15	50	✓
R6a								
r6a.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
r6a.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
r6a.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
r6a.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
r6a.8xlarge	12.5 Gigabit	x	✓	x	1	8	30	✓
r6a.12xlarge	18.75 Gigabit	x	✓	x	1	8	30	✓
r6a.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
r6a.24xlarge	37.5 Gigabit	x	✓	x	1	15	50	✓
r6a.32xlarge	50 Gigabit	x	✓	x	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	x	✓	x	1	2	4	✓
r6g.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓
r6g.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
r6g.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
r6g.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
r6g.8xlarge	12 Gigabit	x	✓	x	1	8	30	✓
r6g.12xlarge	20 Gigabit	x	✓	x	1	8	30	✓
r6g.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
r6g.metal	25 Gigabit	x	✓	x	1	15	50	✓
R6gd								
r6gd.medium ¹	0.5 / 10.0	x	✓	x	1	2	4	✓
r6gd.large ¹	0.75 / 10.0	x	✓	x	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
r6gd.xlarge ¹	1.25 / 10.0	x	✓	x	1	4	15	✓
r6gd.2xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
r6gd.4xlarge ¹	5.0 / 10.0	x	✓	x	1	8	30	✓
r6gd.8xlarge	12 Gigabit	x	✓	x	1	8	30	✓
r6gd.12xlarge	20 Gigabit	x	✓	x	1	8	30	✓
r6gd.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
r6gd.metal	25 Gigabit	x	✓	x	1	15	50	✓
R6i								
r6i.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
r6i.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
r6i.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
r6i.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
r6i.8xlarge	12.5 Gigabit	x	✓	✓	1	8	30	✓
r6i.12xlarge	18.75 Gigabit	x	✓	✓	1	8	30	✓
r6i.16xlarge	25 Gigabit	x	✓	✓	1	15	50	✓
r6i.24xlarge	37.5 Gigabit	x	✓	✓	1	15	50	✓
r6i.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
r6i.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
R6idn								
r6idn.large ¹	3.125 / 25.0	x	✓	x	1	3	10	✓
r6idn.xlarge ¹	6.25 / 30.0	x	✓	x	1	4	15	✓
r6idn.2xlarge ₁	12.5 / 40.0	x	✓	x	1	4	15	✓
r6idn.4xlarge ₁	25.0 / 50.0	x	✓	x	1	8	30	✓
r6idn.8xlarge	50 Gigabit	x	✓	x	1	8	30	✓
r6idn.12xlarge	75 Gigabit	x	✓	x	1	8	30	✓
r6idn.16xlarge	100 Gigabit	x	✓	x	1	15	50	✓
r6idn.24xlarge	150 Gigabit	x	✓	x	1	15	50	✓
r6idn.32xlarge	200 Gigabit	✓	✓	x	2	14	50	✓
r6idn.metal	200 Gigabit	✓	✓	x	2	14	50	✓
R6in								
r6in.large ¹	3.125 / 25.0	x	✓	x	1	3	10	✓
r6in.xlarge ¹	6.25 / 30.0	x	✓	x	1	4	15	✓
r6in.2xlarge ¹	12.5 / 40.0	x	✓	x	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
r6in.4xlarge ¹	25.0 / 50.0	x	✓	x	1	8	30	✓
r6in.8xlarge	50 Gigabit	x	✓	x	1	8	30	✓
r6in.12xlarge	75 Gigabit	x	✓	x	1	8	30	✓
r6in.16xlarge	100 Gigabit	x	✓	x	1	15	50	✓
r6in.24xlarge	150 Gigabit	x	✓	x	1	15	50	✓
r6in.32xlarge	200 Gigabit	✓	✓	x	2	14	50	✓
r6in.metal	200 Gigabit	✓	✓	x	2	14	50	✓
R6id								
r6id.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
r6id.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
r6id.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
r6id.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
r6id.8xlarge	12.5 Gigabit	x	✓	✓	1	8	30	✓
r6id.12xlarge	18.75 Gigabit	x	✓	✓	1	8	30	✓
r6id.16xlarge	25 Gigabit	x	✓	✓	1	15	50	✓
r6id.24xlarge	37.5 Gigabit	x	✓	✓	1	15	50	✓
r6id.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
r6id.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
R7a								
r7a.medium ¹	0.39 / 12.5	x	✓	x	1	2	4	✓
r7a.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
r7a.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
r7a.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
r7a.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
r7a.8xlarge	12.5 Gigabit	x	✓	x	1	8	30	✓
r7a.12xlarge	18.75 Gigabit	x	✓	x	1	8	30	✓
r7a.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
r7a.24xlarge	37.5 Gigabit	x	✓	x	1	15	50	✓
r7a.32xlarge	50 Gigabit	x	✓	x	1	15	50	✓
r7a.48xlarge	50 Gigabit	✓	✓	x	1	15	50	✓
r7a.metal-48xl	50 Gigabit	✓	✓	x	1	15	50	✓
R7g								
r7g.medium ¹	0.52 / 12.5	x	✓	x	1	2	4	✓
r7g.large ¹	0.937 / 12.5	x	✓	x	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
R7i								
r7i.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
r7i.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
r7i.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
r7i.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓
r7i.8xlarge	12.5 Gigabit	x	✓	x	1	8	30	✓
r7i.12xlarge	18.75 Gigabit	x	✓	✓	1	8	30	✓
r7i.16xlarge	25 Gigabit	x	✓	✓	1	15	50	✓
r7i.24xlarge	37.5 Gigabit	x	✓	✓	1	15	50	✓
r7i.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r7i.metal-24xl	37.5 Gigabit	x	✓	✓	1	15	50	✓
r7i.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
R7iz								
r7iz.large ¹	0.781 / 12.5	x	✓	x	1	3	10	✓
r7iz.xlarge ¹	1.562 / 12.5	x	✓	x	1	4	15	✓
r7iz.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓
r7iz.4xlarge ¹	6.25 / 12.5	x	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
r7iz.8xlarge	12.5 Gigabit	x	✓	x	1	8	30	✓
r7iz.12xlarge	25 Gigabit	x	✓	x	1	8	30	✓
r7iz.16xlarge	25 Gigabit	x	✓	x	1	15	50	✓
r7iz.32xlarge	50 Gigabit	✓	✓	x	1	15	50	✓
r7iz.meta l-16xl	25 Gigabit	x	✓	x	1	15	50	✓
r7iz.meta l-32xl	50 Gigabit	✓	✓	x	1	15	50	✓
U-3tb1								
u-3tb1.56 xlarge	50 Gigabit	x	✓	x	1	8	30	✓
U-6tb1								
u-6tb1.56 xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-6tb1.11 2xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-6tb1.metal	100	x	✓	x	1	5	30	✓
U-9tb1								
u-9tb1.11 2xlarge	100 Gigabit	x	✓	x	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
u-9tb1.metal	100	x	✓	x	1	5	30	✓
U-12tb1								
u-12tb1.1 12xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-12tb1.metal	100	x	✓	x	1	5	30	✓
U-18tb1								
u-18tb1.1 12xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-18tb1.metal	100 Gigabit	x	✓	x	1	15	50	✓
U-24tb1								
u-24tb1.1 12xlarge	100 Gigabit	x	✓	x	1	15	50	✓
u-24tb1.metal	100 Gigabit	x	✓	x	1	15	50	✓
X1								
x1.16xlarge	10 Gigabit	x	✓	x	1	8	30	✓
x1.32xlarge	25 Gigabit	x	✓	x	1	8	30	✓
X2gd								
x2gd.medium 1	0.5 / 10.0	x	✓	x	1	2	4	✓

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

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
x2iezn.12xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
x2iezn.metal	100 Gigabit	✓	✓	✗	1	15	50	✓
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	✓
z1d								
z1d.large ¹	0.75 / 10.0	✗	✓	✗	1	3	10	✓
z1d.xlarge ¹	1.25 / 10.0	✗	✓	✗	1	4	15	✓
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 32xlarge and metal instance types that support 200 Gbps, at least 2 ENIs, each attached to a different network card, are required on the instance to achieve 200 Gbps throughput. Each ENI attached to a network card can achieve a max of 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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
R5					
r5.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
r5.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
r5.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	default
r5.4xlarge	4750.00	593.75	18750.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r5.8xlarge	6800.00	850.00	30000.00	✓	default
r5.12xlarge	9500.00	1187.50	40000.00	✓	default
r5.16xlarge	13600.00	1700.00	60000.00	✓	default
r5.24xlarge	19000.00	2375.00	80000.00	✓	default
r5.metal	19000.00	2375.00	80000.00	✓	default
R5a					
r5a.large ¹	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	default
r5a.xlarge ¹	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	default
r5a.2xlarge ¹	1580.00 / 2880.00	197.50 / 360.00	8333.00 / 16000.00	✓	default
r5a.4xlarge	2880.00	360.00	16000.00	✓	default
r5a.8xlarge	4750.00	593.75	20000.00	✓	default
r5a.12xlarge	6780.00	847.50	30000.00	✓	default
r5a.16xlarge	9500.00	1187.50	40000.00	✓	default
r5a.24xlarge	13570.00	1696.25	60000.00	✓	default
R5ad					
r5ad.large ¹	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r5ad.xlarge ¹	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	default
r5ad.2xlarge ¹	1580.00 / 2880.00	197.50 / 360.00	8333.00 / 16000.00	✓	default
r5ad.4xlarge	2880.00	360.00	16000.00	✓	default
r5ad.8xlarge	4750.00	593.75	20000.00	✓	default
r5ad.12xlarge	6780.00	847.50	30000.00	✓	default
r5ad.16xlarge	9500.00	1187.50	40000.00	✓	default
r5ad.24xlarge	13570.00	1696.25	60000.00	✓	default
R5b					
r5b.large ¹	1250.00 / 10000.00	156.25 / 1250.00	5417.00 / 43333.00	✓	default
r5b.xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10833.00 / 43333.00	✓	default
r5b.2xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	21667.00 / 43333.00	✓	default
r5b.4xlarge	10000.00	1250.00	43333.00	✓	default
r5b.8xlarge	20000.00	2500.00	86667.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r5b.12xlarge	30000.00	3750.00	130000.00	✓	default
r5b.16xlarge	40000.00	5000.00	173333.00	✓	default
r5b.24xlarge	60000.00	7500.00	260000.00	✓	default
r5b.metal	60000.00	7500.00	260000.00	✓	default
R5d					
r5d.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
r5d.xlarge ¹	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
r5d.2xlarge ¹	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	default
r5d.4xlarge	4750.00	593.75	18750.00	✓	default
r5d.8xlarge	6800.00	850.00	30000.00	✓	default
r5d.12xlarge	9500.00	1187.50	40000.00	✓	default
r5d.16xlarge	13600.00	1700.00	60000.00	✓	default
r5d.24xlarge	19000.00	2375.00	80000.00	✓	default
r5d.metal	19000.00	2375.00	80000.00	✓	default
R5dn					
r5dn.large ¹	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r5n.8xlarge	6800.00	850.00	30000.00	✓	default
r5n.12xlarge	9500.00	1187.50	40000.00	✓	default
r5n.16xlarge	13600.00	1700.00	60000.00	✓	default
r5n.24xlarge	19000.00	2375.00	80000.00	✓	default
r5n.metal	19000.00	2375.00	80000.00	✓	default
R6a					
r6a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r6a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r6a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r6a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
r6a.8xlarge	10000.00	1250.00	40000.00	✓	default
r6a.12xlarge	15000.00	1875.00	60000.00	✓	default
r6a.16xlarge	20000.00	2500.00	80000.00	✓	default
r6a.24xlarge	30000.00	3750.00	120000.00	✓	default
r6a.32xlarge	40000.00	5000.00	160000.00	✓	default
r6a.48xlarge	40000.00	5000.00	240000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r6a.metal	40000.00	5000.00	240000.00	✓	default
R6g					
r6g.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
r6g.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
r6g.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
r6g.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	default
r6g.4xlarge	4750.00	593.75	20000.00	✓	default
r6g.8xlarge	9500.00	1187.50	40000.00	✓	default
r6g.12xlarge	14250.00	1781.25	50000.00	✓	default
r6g.16xlarge	19000.00	2375.00	80000.00	✓	default
r6g.metal	19000.00	2375.00	80000.00	✓	default
R6gd					
r6gd.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
r6gd.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r6gd.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
r6gd.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	default
r6gd.4xlarge	4750.00	593.75	20000.00	✓	default
r6gd.8xlarge	9500.00	1187.50	40000.00	✓	default
r6gd.12xlarge	14250.00	1781.25	50000.00	✓	default
r6gd.16xlarge	19000.00	2375.00	80000.00	✓	default
r6gd.metal	19000.00	2375.00	80000.00	✓	default
R6i					
r6i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r6i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r6i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r6i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
r6i.8xlarge	10000.00	1250.00	40000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r6i.12xlarge	15000.00	1875.00	60000.00	✓	default
r6i.16xlarge	20000.00	2500.00	80000.00	✓	default
r6i.24xlarge	30000.00	3750.00	120000.00	✓	default
r6i.32xlarge	40000.00	5000.00	160000.00	✓	default
r6i.metal	40000.00	5000.00	160000.00	✓	default
R6idn					
r6idn.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	default
r6idn.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	default
r6idn.2xlarge ¹	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	default
r6idn.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	default
r6idn.8xlarge	25000.00	3125.00	100000.00	✓	default
r6idn.12xlarge	37500.00	4687.50	150000.00	✓	default
r6idn.16xlarge	50000.00	6250.00	200000.00	✓	default
r6idn.24xlarge	75000.00	9375.00	300000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r6idn.32xlarge	100000.00	12500.00	400000.00	✓	default
r6idn.metal	100000.00	12500.00	400000.00	✓	default
R6in					
r6in.large ¹	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	default
r6in.xlarge ¹	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	default
r6in.2xlarge ¹	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	default
r6in.4xlarge ¹	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	default
r6in.8xlarge	25000.00	3125.00	100000.00	✓	default
r6in.12xlarge	37500.00	4687.50	150000.00	✓	default
r6in.16xlarge	50000.00	6250.00	200000.00	✓	default
r6in.24xlarge	75000.00	9375.00	300000.00	✓	default
r6in.32xlarge	100000.00	12500.00	400000.00	✓	default
r6in.metal	100000.00	12500.00	400000.00	✓	default
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 optimization ²
r6id.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r6id.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r6id.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r6id.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
r6id.8xlarge	10000.00	1250.00	40000.00	✓	default
r6id.12xlarge	15000.00	1875.00	60000.00	✓	default
r6id.16xlarge	20000.00	2500.00	80000.00	✓	default
r6id.24xlarge	30000.00	3750.00	120000.00	✓	default
r6id.32xlarge	40000.00	5000.00	160000.00	✓	default
r6id.metal	40000.00	5000.00	160000.00	✓	default
R7a					
r7a.medium ¹	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 40000.00	✓	default
r7a.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r7a.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r7a.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r7a.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
r7a.8xlarge	10000.00	1250.00	40000.00	✓	default
r7a.12xlarge	15000.00	1875.00	60000.00	✓	default
r7a.16xlarge	20000.00	2500.00	80000.00	✓	default
r7a.24xlarge	30000.00	3750.00	120000.00	✓	default
r7a.32xlarge	40000.00	5000.00	160000.00	✓	default
r7a.48xlarge	40000.00	5000.00	240000.00	✓	default
r7a.metal-48xl	40000.00	5000.00	240000.00	✓	default
R7g					
r7g.medium ¹	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
r7g.large ¹	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
r7g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r7g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
r7gd.16xlarge	20000.00	2500.00	80000.00	✓	default
r7gd.metal	20000.00	2500.00	80000.00	✓	default
R7i					
r7i.large ¹	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r7i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r7i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r7i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
r7i.8xlarge	10000.00	1250.00	40000.00	✓	default
r7i.12xlarge	15000.00	1875.00	60000.00	✓	default
r7i.16xlarge	20000.00	2500.00	80000.00	✓	default
r7i.24xlarge	30000.00	3750.00	120000.00	✓	default
r7i.48xlarge	40000.00	5000.00	240000.00	✓	default
r7i.metal-24xl	30000.00	3750.00	120000.00	✓	default
r7i.metal-48xl	40000.00	5000.00	240000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
R7iz					
r7iz.large ¹	792.00 / 10000.00	99.00 / 1250.00	3600.00 / 40000.00	✓	default
r7iz.xlarge ¹	1584.00 / 10000.00	198.00 / 1250.00	6667.00 / 40000.00	✓	default
r7iz.2xlarge ¹	3168.00 / 10000.00	396.00 / 1250.00	13333.00 / 40000.00	✓	default
r7iz.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
r7iz.8xlarge	10000.00	1250.00	40000.00	✓	default
r7iz.12xlarge	19000.00	2375.00	76000.00	✓	default
r7iz.16xlarge	20000.00	2500.00	80000.00	✓	default
r7iz.32xlarge	40000.00	5000.00	160000.00	✓	default
r7iz.meta l-16xl	20000.00	2500.00	80000.00	✓	default
r7iz.meta l-32xl	40000.00	5000.00	160000.00	✓	default
U-3tb1					
u-3tb1.56xlarge	19000.00	2375.00	80000.00	✓	default
U-6tb1					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
u-6tb1.56xlarge	38000.00	4750.00	160000.00	✓	default
u-6tb1.112xlarge	38000.00	4750.00	160000.00	✓	default
u-6tb1.metal	38000.00	4750.00	160000.00	✓	default
U-9tb1					
u-9tb1.112xlarge	38000.00	4750.00	160000.00	✓	default
u-9tb1.metal	38000.00	4750.00	160000.00	✓	default
U-12tb1					
u-12tb1.12xlarge	38000.00	4750.00	160000.00	✓	default
u-12tb1.metal	38000.00	4750.00	160000.00	✓	default
U-18tb1					
u-18tb1.12xlarge	38000.00	4750.00	160000.00	✓	default
u-18tb1.metal	38000.00	4750.00	160000.00	✓	default
U-24tb1					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
u-24tb1.1 12xlarge	38000.00	4750.00	160000.00	✓	default
u-24tb1.metal	38000.00	4750.00	160000.00	✓	default
X1					
x1.16xlarge	7000.00	875.00	40000.00	✗	default
x1.32xlarge	14000.00	1750.00	80000.00	✗	default
X2gd					
x2gd.medium ¹	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
x2gd.large ¹	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
x2gd.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
x2gd.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	default
x2gd.4xlarge	4750.00	593.75	20000.00	✓	default
x2gd.8xlarge	9500.00	1187.50	40000.00	✓	default
x2gd.12xlarge	14250.00	1781.25	60000.00	✓	default

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
x2iedn.24xlarge	60000.00	7500.00	195000.00	✓	default
x2iedn.32xlarge	80000.00	10000.00	260000.00	✓	default
x2iedn.metal	80000.00	10000.00	260000.00	✓	default
X2iezn					
x2iezn.2xlarge	3170.00	396.25	13333.00	✓	default
x2iezn.4xlarge	4750.00	593.75	20000.00	✓	default
x2iezn.6xlarge	9500.00	1187.50	40000.00	✓	default
x2iezn.8xlarge	12000.00	1500.00	55000.00	✓	default
x2iezn.12xlarge	19000.00	2375.00	80000.00	✓	default
x2iezn.metal	19000.00	2375.00	80000.00	✓	default
X1e					
x1e.xlarge	500.00	62.50	3700.00	✗	default
x1e.2xlarge	1000.00	125.00	7400.00	✗	default
x1e.4xlarge	1750.00	218.75	10000.00	✗	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
x1e.8xlarge	3500.00	437.50	20000.00	✗	default
x1e.16xlarge	7000.00	875.00	40000.00	✗	default
x1e.32xlarge	14000.00	1750.00	80000.00	✗	default
z1d					
z1d.large ¹	800.00 / 3170.00	100.00 / 396.25	3333.00 / 13333.00	✓	default
z1d.xlarge ¹	1580.00 / 3170.00	197.50 / 396.25	6667.00 / 13333.00	✓	default
z1d.2xlarge	3170.00	396.25	13333.00	✓	default
z1d.3xlarge	4750.00	593.75	20000.00	✓	default
z1d.6xlarge	9500.00	1187.50	40000.00	✓	default
z1d.12xlarge	19000.00	2375.00	80000.00	✓	default
z1d.metal	19000.00	2375.00	80000.00	✓	default

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.

² default indicates that instances are enabled for EBS optimization by default.
supported indicates that instances can optionally be enabled for EBS optimization For more information, see [Amazon EBS-optimized instances](#).

Instance store specifications

Instance type	Instance store volumes	Instance store type	Read / Write performance (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		✓
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					

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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					
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
r7gd.metal	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
X1					
x1.16xlarge	1 x 1920 GB	SSD		✓	
x1.32xlarge	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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
x2gd.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
x2iedn.32xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
x2iedn.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
X1e					
x1e.xlarge	1 x 120 GB	SSD		✓	
x1e.2xlarge	1 x 240 GB	SSD		✓	
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		✓	
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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	X	X	✓	X
r5.xlarge	✓	Instance store not supported	X	X	✓	✓
r5.2xlarge	✓	Instance store not supported	X	X	✓	✓
r5.4xlarge	✓	Instance store not	X	X	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
		supported				
r5.8xlarge	✓	Instance store not supported	X	X	✓	✓
r5.12xlarge	✓	Instance store not supported	X	X	✓	✓
r5.16xlarge	✓	Instance store not supported	X	X	✓	✓
r5.24xlarge	✓	Instance store not supported	X	X	✓	✓
r5.metal	✓	Instance store not supported	X	X	X	X
R5a						
r5a.large	✓	Instance store not supported	X	X	✓	X
r5a.xlarge	✓	Instance store not supported	X	X	✓	✓

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

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5b.16xlarge	✓	Instance store not supported	X	X	✓	✓
r5b.24xlarge	✓	Instance store not supported	X	X	✓	✓
r5b.metal	✓	Instance store not supported	X	X	X	X
R5d						
r5d.large	✓	✓	X	X	✓	X
r5d.xlarge	✓	✓	X	X	✓	✓
r5d.2xlarge	✓	✓	X	X	✓	✓
r5d.4xlarge	✓	✓	X	X	✓	✓
r5d.8xlarge	✓	✓	X	X	✓	✓
r5d.12xlarge	✓	✓	X	X	✓	✓
r5d.16xlarge	✓	✓	X	X	✓	✓
r5d.24xlarge	✓	✓	X	X	✓	✓
r5d.metal	✓	✓	X	X	X	X
R5dn						
r5dn.large	✓	✓	✓	X	✓	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5dn.xlarge	✓	✓	✓	X	✓	✓
r5dn.2xlarge	✓	✓	✓	X	✓	✓
r5dn.4xlarge	✓	✓	✓	X	✓	✓
r5dn.8xlarge	✓	✓	✓	X	✓	✓
r5dn.12xlarge	✓	✓	✓	X	✓	✓
r5dn.16xlarge	✓	✓	✓	X	✓	✓
r5dn.24xlarge	✓	✓	✓	X	✓	✓
r5dn.metal	✓	✓	✓	X	X	X
R5n						
r5n.large	✓	Instance store not supported	✓	X	✓	X
r5n.xlarge	✓	Instance store not supported	✓	X	✓	✓
r5n.2xlarge	✓	Instance store not supported	✓	X	✓	✓
r5n.4xlarge	✓	Instance store not supported	✓	X	✓	✓

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

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

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6g.metal	✓	Instance store not supported	X	X	X	X
R6gd						
r6gd.medium	✓	✓	X	X	X	X
r6gd.large	✓	✓	X	X	X	✓
r6gd.xlarge	✓	✓	X	X	X	✓
r6gd.2xlarge	✓	✓	X	X	X	✓
r6gd.4xlarge	✓	✓	X	X	X	✓
r6gd.8xlarge	✓	✓	X	X	X	✓
r6gd.12xlarge	✓	✓	X	X	X	✓
r6gd.16xlarge	✓	✓	X	X	X	✓
r6gd.metal	✓	✓	X	X	X	X
R6i						
r6i.large	✓	Instance store not supported	✓	X	✓	X
r6i.xlarge	✓	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✗	✓	✓
r6i.24xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6i.metal	✓	Instance store not supported	✓	✗	✗	✗
R6idn						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6idn.large	✓	✓	✓	X	✓	X
r6idn.xlarge	✓	✓	✓	X	✓	✓
r6idn.2xlarge	✓	✓	✓	X	✓	✓
r6idn.4xlarge	✓	✓	✓	X	✓	✓
r6idn.8xlarge	✓	✓	✓	X	✓	✓
r6idn.12xlarge	✓	✓	✓	X	✓	✓
r6idn.16xlarge	✓	✓	✓	X	✓	✓
r6idn.24xlarge	✓	✓	✓	X	✓	✓
r6idn.32xlarge	✓	✓	✓	X	✓	✓
r6idn.metal	✓	✓	✓	X	X	X
R6in						
r6in.large	✓	Instance store not supported	✓	X	✓	X
r6in.xlarge	✓	Instance store not supported	✓	X	✓	✓
r6in.2xlarge	✓	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✗	✓	✓
r6in.32xlarge	✓	Instance store not supported	✓	✗	✓	✓
r6in.metal	✓	Instance store not supported	✓	✗	✗	✗
R6id						
r6id.large	✓	✓	✓	✗	✓	✗
r6id.xlarge	✓	✓	✓	✗	✓	✓

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7a.4xlarge	✓	Instance store not supported	✓	X	✓	X
r7a.8xlarge	✓	Instance store not supported	✓	X	✓	X
r7a.12xlarge	✓	Instance store not supported	✓	X	✓	X
r7a.16xlarge	✓	Instance store not supported	✓	X	✓	X
r7a.24xlarge	✓	Instance store not supported	✓	X	✓	X
r7a.32xlarge	✓	Instance store not supported	✓	X	✓	X
r7a.48xlarge	✓	Instance store not supported	✓	X	✓	X
r7a.metal-48xl	✓	Instance store not supported	✓	X	X	X
R7g						

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7g.metal	✓	Instance store not supported	✓	X	X	X
R7gd						
r7gd.medium	✓	✓	✓	X	X	X
r7gd.large	✓	✓	✓	X	X	X
r7gd.xlarge	✓	✓	✓	X	X	X
r7gd.2xlarge	✓	✓	✓	X	X	X
r7gd.4xlarge	✓	✓	✓	X	X	X
r7gd.8xlarge	✓	✓	✓	X	X	X
r7gd.12xlarge	✓	✓	✓	X	X	X
r7gd.16xlarge	✓	✓	✓	X	X	X
r7gd.metal	✓	✓	✓	X	X	X
R7i						
r7i.large	✓	Instance store not supported	✓	X	✓	X
r7i.xlarge	✓	Instance store not supported	✓	X	✓	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7i.2xlarge	✓	Instance store not supported	✓	X	✓	X
r7i.4xlarge	✓	Instance store not supported	✓	X	✓	X
r7i.8xlarge	✓	Instance store not supported	✓	X	✓	X
r7i.12xlarge	✓	Instance store not supported	✓	X	✓	X
r7i.16xlarge	✓	Instance store not supported	✓	X	✓	X
r7i.24xlarge	✓	Instance store not supported	✓	X	✓	X
r7i.48xlarge	✓	Instance store not supported	✓	X	✓	X
r7i.metal-24xl	✓	Instance store not supported	✓	X	X	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7i.metal-48xl	✓	Instance store not supported	✓	X	X	X
R7iz						
r7iz.large	✓	Instance store not supported	✓	X	✓	X
r7iz.xlarge	✓	Instance store not supported	✓	X	✓	X
r7iz.2xlarge	✓	Instance store not supported	✓	X	✓	X
r7iz.4xlarge	✓	Instance store not supported	✓	X	✓	X
r7iz.8xlarge	✓	Instance store not supported	✓	X	✓	X
r7iz.12xlarge	✓	Instance store not supported	✓	X	✓	X
r7iz.16xlarge	✓	Instance store not supported	✓	X	✓	X

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7iz.32xlarge	✓	Instance store not supported	✓	X	✓	X
r7iz.metal-16xl	✓	Instance store not supported	✓	X	X	X
r7iz.metal-32xl	✓	Instance store not supported	✓	X	X	X
U-3tb1						
u-3tb1.56xlarge	✓	Instance store not supported	✓	X	X	X
U-6tb1						
u-6tb1.56xlarge	✓	Instance store not supported	✓	X	X	X
u-6tb1.112xlarge	✓	Instance store not supported	✓	X	X	X
u-6tb1.metal	✓	Instance store not supported	✓	X	X	X
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	✓	X	X	X
X1						
x1.16xlarge	✓	X	X	X	X	X
x1.32xlarge	✓	X	X	X	X	X
X2gd						
x2gd.medium	✓	✓	X	X	X	X
x2gd.large	✓	✓	X	X	X	✓
x2gd.xlarge	✓	✓	X	X	X	✓
x2gd.2xlarge	✓	✓	X	X	X	✓
x2gd.4xlarge	✓	✓	X	X	X	✓
x2gd.8xlarge	✓	✓	X	X	X	✓
x2gd.12xlarge	✓	✓	X	X	X	✓
x2gd.16xlarge	✓	✓	X	X	X	✓
x2gd.metal	✓	✓	X	X	X	X
X2idn						
x2idn.16xlarge	✓	✓	✓	X	X	✓
x2idn.24xlarge	✓	✓	✓	X	X	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
x2idn.32xlarge	✓	✓	✓	X	X	✓
x2idn.metal	✓	✓	✓	X	X	X
X2iedn						
x2iedn.xlarge	✓	✓	✓	X	X	✓
x2iedn.2xlarge	✓	✓	✓	X	X	✓
x2iedn.4xlarge	✓	✓	✓	X	X	✓
x2iedn.8xlarge	✓	✓	✓	X	X	✓
x2iedn.16xlarge	✓	✓	✓	X	X	✓
x2iedn.24xlarge	✓	✓	✓	X	X	✓
x2iedn.32xlarge	✓	✓	✓	X	X	✓
x2iedn.metal	✓	✓	✓	X	X	X
X2iezn						
x2iezn.2xlarge	✓	Instance store not supported	✓	X	X	✓
x2iezn.4xlarge	✓	Instance store not supported	✓	X	X	✓
x2iezn.6xlarge	✓	Instance store not supported	✓	X	X	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
x2iezn.8xlarge	✓	Instance store not supported	✓	X	X	✓
x2iezn.12xlarge	✓	Instance store not supported	✓	X	X	✓
x2iezn.metal	✓	Instance store not supported	✓	X	X	X
X1e						
x1e.xlarge	✓	X	X	X	X	X
x1e.2xlarge	✓	X	X	X	X	X
x1e.4xlarge	✓	X	X	X	X	X
x1e.8xlarge	✓	X	X	X	X	X
x1e.16xlarge	✓	X	X	X	X	X
x1e.32xlarge	✓	X	X	X	X	X
z1d						
z1d.large	✓	✓	X	X	✓	X
z1d.xlarge	✓	✓	X	X	✓	✓
z1d.2xlarge	✓	✓	X	X	✓	✓
z1d.3xlarge	✓	✓	X	X	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
z1d.6xlarge	✓	✓	X	X	✓	✓
z1d.12xlarge	✓	✓	X	X	✓	✓
z1d.metal	✓	✓	X	X	X	X

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.

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Available sizes

Instance type	Available sizes
D2	d2.xlarge d2.2xlarge d2.4xlarge d2.8xlarge
D3	d3.xlarge d3.2xlarge d3.4xlarge d3.8xlarge

Instance type	Available sizes
D3en	d3en.xlarge d3en.2xlarge d3en.4xlarge d3en.6xlarge d3en.8xlarge d3en.12xlarge
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 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
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

Platform summary

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
D2	Xen	Intel (x86_64)	x	✓	✓	x	Windows Linux

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
D3	Nitro	Intel (x86_64)	x	x	✓	x	Windows Linux
D3en	Nitro	Intel (x86_64)	x	x	✓	x	Windows Linux
H1	Xen	Intel (x86_64)	x	✓	✓	x	Windows Linux
I3	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
I3en	Nitro	Intel (x86_64)	✓	✓	✓	✓	Windows Linux
I4g	Nitro	AWS Graviton (arm64)	x	✓	✓	x	Linux
I4i	Nitro	Intel (x86_64)	✓	✓	✓	x	Windows Linux
Im4gn	Nitro	AWS Graviton (arm64)	x	✓	✓	x	Linux
Is4gen	Nitro	AWS Graviton (arm64)	x	x	✓	x	Linux

Performance specifications

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
D2							
d2.xlarge	x	30.50	Intel Xeon E52676v3	4	2	2	x
d2.2xlarge	x	61.00	Intel Xeon E52676v3	8	4	2	x
d2.4xlarge	x	122.00	Intel Xeon E52676v3	16	8	2	x
d2.8xlarge	x	244.00	Intel Xeon E52676v3	36	18	2	x
D3							
d3.xlarge	x	32.00	Intel Xeon Platinum 8259	4	2	2	x
d3.2xlarge	x	64.00	Intel Xeon Platinum 8259	8	4	2	x
d3.4xlarge	x	128.00	Intel Xeon Platinum 8259	16	8	2	x
d3.8xlarge	x	256.00	Intel Xeon Platinum 8259	32	16	2	x
D3en							
d3en.xlarge	x	16.00	Intel Xeon Platinum 8259	4	2	2	x

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
d3en.2xlarge	x	32.00	Intel Xeon Platinum 8259	8	4	2	x
d3en.4xlarge	x	64.00	Intel Xeon Platinum 8259	16	8	2	x
d3en.6xlarge	x	96.00	Intel Xeon Platinum 8259	24	12	2	x
d3en.8xlarge	x	128.00	Intel Xeon Platinum 8259	32	16	2	x
d3en.12xlarge	x	192.00	Intel Xeon Platinum 8259	48	24	2	x
H1							
h1.2xlarge	x	32.00	Intel Broadwell E5-2686v4	8	4	2	x
h1.4xlarge	x	64.00	Intel Broadwell E5-2686v4	16	8	2	x
h1.8xlarge	x	128.00	Intel Broadwell E5-2686v4	32	16	2	x
h1.16xlarge	x	256.00	Intel Broadwell E5-2686v4	64	32	2	x
I3							
i3.large	x	15.25	Intel Broadwell E5-2686v4	2	1	2	x
i3.xlarge	x	30.50	Intel Broadwell E5-2686v4	4	2	2	x

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
i3.2xlarge	x	61.00	Intel Broadwell E5-2686v4	8	4	2	x
i3.4xlarge	x	122.00	Intel Broadwell E5-2686v4	16	8	2	x
i3.8xlarge	x	244.00	Intel Broadwell E5-2686v4	32	16	2	x
i3.16xlarge	x	488.00	Intel Broadwell E5-2686v4	64	32	2	x
i3.metal	x	512.00	Intel Broadwell E5-2686v4	72	36	2	x
I3en							
i3en.large	x	16.00	Intel Xeon Platinum 8175	2	1	2	x
i3en.xlarge	x	32.00	Intel Xeon Platinum 8175	4	2	2	x
i3en.2xlarge	x	64.00	Intel Xeon Platinum 8175	8	4	2	x
i3en.3xlarge	x	96.00	Intel Xeon Platinum 8175	12	6	2	x
i3en.6xlarge	x	192.00	Intel Xeon Platinum 8175	24	12	2	x
i3en.12xlarge	x	384.00	Intel Xeon Platinum 8175	48	24	2	x

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
i3en.24xlarge	X	768.00	Intel Xeon Platinum 8175	96	48	2	X
i3en.metal	X	768.00	Intel Xeon Platinum 8175	96	48	2	X
I4g							
i4g.large	X	16.00	AWS Graviton2 Processor	2	2	1	X
i4g.xlarge	X	32.00	AWS Graviton2 Processor	4	4	1	X
i4g.2xlarge	X	64.00	AWS Graviton2 Processor	8	8	1	X
i4g.4xlarge	X	128.00	AWS Graviton2 Processor	16	16	1	X
i4g.8xlarge	X	256.00	AWS Graviton2 Processor	32	32	1	X
i4g.16xlarge	X	512.00	AWS Graviton2 Processor	64	64	1	X
I4i							
i4i.large	X	16.00	Intel Xeon Ice Lake	2	1	2	X
i4i.xlarge	X	32.00	Intel Xeon Ice Lake	4	2	2	X
i4i.2xlarge	X	64.00	Intel Xeon Ice Lake	8	4	2	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
i4i.4xlarge	x	128.00	Intel Xeon Ice Lake	16	8	2	x
i4i.8xlarge	x	256.00	Intel Xeon Ice Lake	32	16	2	x
i4i.12xlarge	x	384.00	Intel Xeon Ice Lake	48	24	2	x
i4i.16xlarge	x	512.00	Intel Xeon Ice Lake	64	32	2	x
i4i.24xlarge	x	768.00	Intel Xeon Ice Lake	96	48	2	x
i4i.32xlarge	x	1024.00	Intel Xeon Ice Lake	128	64	2	x
i4i.metal	x	1024.00	Intel Xeon Ice Lake	128	64	2	x
Im4gn							
im4gn.large	x	8.00	AWS Graviton2 Processor	2	2	1	x
im4gn.xlarge	x	16.00	AWS Graviton2 Processor	4	4	1	x
im4gn.2xlarge	x	32.00	AWS Graviton2 Processor	8	8	1	x
im4gn.4xlarge	x	64.00	AWS Graviton2 Processor	16	16	1	x

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

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
d3en.12xlarge	75 Gigabit	x	✓	x	1	3	30	✓
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	✓

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
i4i.32xlarge	75 Gigabit	✓	✓	✓	1	15	50	✓
i4i.metal	75 Gigabit	✓	✓	✓	1	15	50	✓
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	✓

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
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D2

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
d2.xlarge	750.00	93.75	6000.00	✗	default
d2.2xlarge	1000.00	125.00	8000.00	✗	default
d2.4xlarge	2000.00	250.00	16000.00	✗	default
d2.8xlarge	4000.00	500.00	32000.00	✗	default
D3					
d3.xlarge ¹	850.00 / 2800.00	106.25 / 350.00	5000.00 / 15000.00	✓	default
d3.2xlarge ¹	1700.00 / 2800.00	212.50 / 350.00	10000.00 / 15000.00	✓	default
d3.4xlarge	2800.00	350.00	15000.00	✓	default
d3.8xlarge	5000.00	625.00	30000.00	✓	default
D3en					
d3en.xlarge ¹	850.00 / 2800.00	106.25 / 350.00	5000.00 / 15000.00	✓	default
d3en.2xlarge ¹	1700.00 / 2800.00	212.50 / 350.00	10000.00 / 15000.00	✓	default
d3en.4xlarge	2800.00	350.00	15000.00	✓	default
d3en.6xlarge	4000.00	500.00	25000.00	✓	default
d3en.8xlarge	5000.00	625.00	30000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
d3en.12xlarge	7000.00	875.00	40000.00	✓	default
H1					
h1.2xlarge	1750.00	218.75	12000.00	✗	default
h1.4xlarge	3500.00	437.50	20000.00	✗	default
h1.8xlarge	7000.00	875.00	40000.00	✗	default
h1.16xlarge	14000.00	1750.00	80000.00	✗	default
I3					
i3.large	425.00	53.12	3000.00	✗	default
i3.xlarge	850.00	106.25	6000.00	✗	default
i3.2xlarge	1700.00	212.50	12000.00	✗	default
i3.4xlarge	3500.00	437.50	16000.00	✗	default
i3.8xlarge	7000.00	875.00	32500.00	✗	default
i3.16xlarge	14000.00	1750.00	65000.00	✗	default
i3.metal	19000.00	2375.00	80000.00	✓	default
I3en					
i3en.large ¹	576.00 / 4750.00	72.10 / 593.75	3000.00 / 20000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
i3en.xlarge ¹	1153.00 / 4750.00	144.20 / 593.75	6000.00 / 20000.00	✓	default
i3en.2xlarge ¹	2307.00 / 4750.00	288.39 / 593.75	12000.00 / 20000.00	✓	default
i3en.3xlarge ¹	3800.00 / 4750.00	475.00 / 593.75	15000.00 / 20000.00	✓	default
i3en.6xlarge	4750.00	593.75	20000.00	✓	default
i3en.12xlarge	9500.00	1187.50	40000.00	✓	default
i3en.24xlarge	19000.00	2375.00	80000.00	✓	default
i3en.metal	19000.00	2375.00	80000.00	✓	default
I4g					
i4g.large ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	default
i4g.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	default
i4g.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	default
i4g.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
i4g.8xlarge	10000.00	1250.00	40000.00	✓	default
i4g.16xlarge	20000.00	2500.00	80000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
I4i					
i4i.large ¹	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	default
i4i.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	default
i4i.2xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	default
i4i.4xlarge ¹	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
i4i.8xlarge	10000.00	1250.00	40000.00	✓	default
i4i.12xlarge	15000.00	1875.00	60000.00	✓	default
i4i.16xlarge	20000.00	2500.00	80000.00	✓	default
i4i.24xlarge	30000.00	3750.00	120000.00	✓	default
i4i.32xlarge	40000.00	5000.00	160000.00	✓	default
i4i.metal	40000.00	5000.00	160000.00	✓	default
Im4gn					
im4gn.large ¹	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	default
im4gn.xlarge ¹	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	default

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

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.

² default indicates that instances are enabled for EBS optimization by default.

supported indicates that instances can optionally be enabled for EBS optimization For more information, see [Amazon EBS-optimized instances](#).

Instance store specifications

Instance type	Instance store volumes	Instance store type	Read / Write performance (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			✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
d3.4xlarge	12 x 1980 GB	NVMe HDD			✓
d3.8xlarge	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		✓	

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
I3					
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	Read / Write performance (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	Read / Write performance (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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
im4gn.2xlarge	1 x 3750 GB	NVMe SSD	125,000 / 100,000		✓
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	✓	✓	✓	✗	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
d3en.12xlarge	✓	✓	✓	X	✓	✓
H1						
h1.2xlarge	✓	✓	X	X	X	X
h1.4xlarge	✓	✓	X	X	X	X
h1.8xlarge	✓	✓	X	X	X	X
h1.16xlarge	✓	✓	X	X	X	X
I3						
i3.large	✓	✓	X	X	X	X
i3.xlarge	✓	✓	X	X	X	X
i3.2xlarge	✓	✓	X	X	X	X
i3.4xlarge	✓	✓	X	X	X	X
i3.8xlarge	✓	✓	X	X	X	X
i3.16xlarge	✓	✓	X	X	X	X
i3.metal	✓	✓	X	X	X	X
I3en						
i3en.large	✓	✓	✓	X	✓	X
i3en.xlarge	✓	✓	✓	X	✓	✓
i3en.2xlarge	✓	✓	✓	X	✓	✓
i3en.3xlarge	✓	✓	✓	X	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
i3en.6xlarge	✓	✓	✓	X	✓	✓
i3en.12xlarge	✓	✓	✓	X	✓	✓
i3en.24xlarge	✓	✓	✓	X	✓	✓
i3en.metal	✓	✓	✓	X	X	X
I4g						
i4g.large	✓	✓	✓	X	X	✓
i4g.xlarge	✓	✓	✓	X	X	✓
i4g.2xlarge	✓	✓	✓	X	X	✓
i4g.4xlarge	✓	✓	✓	X	X	✓
i4g.8xlarge	✓	✓	✓	X	X	✓
i4g.16xlarge	✓	✓	✓	X	X	✓
I4i						
i4i.large	✓	✓	✓	X	✓	X
i4i.xlarge	✓	✓	✓	X	✓	✓
i4i.2xlarge	✓	✓	✓	X	✓	✓
i4i.4xlarge	✓	✓	✓	X	✓	✓
i4i.8xlarge	✓	✓	✓	X	✓	✓
i4i.12xlarge	✓	✓	✓	X	✓	✓
i4i.16xlarge	✓	✓	✓	X	✓	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
i4i.24xlarge	✓	✓	✓	X	✓	✓
i4i.32xlarge	✓	✓	✓	X	✓	✓
i4i.metal	✓	✓	✓	X	X	X
Im4gn						
im4gn.large	✓	✓	✓	X	X	X
im4gn.xlarge	✓	✓	✓	X	X	X
im4gn.2xlarge	✓	✓	✓	X	X	X
im4gn.4xlarge	✓	✓	✓	X	X	X
im4gn.8xlarge	✓	✓	✓	X	X	X
im4gn.16xlarge	✓	✓	✓	X	X	X
Is4gen						
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

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.

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Available sizes

Instance type	Available sizes
DL1	d11.24xlarge
DL2q	d12q.24xlarge
F1	f1.2xlarge f1.4xlarge f1.16xlarge
G3	g3.4xlarge g3.8xlarge g3.16xlarge
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

Instance type	Available sizes
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
Gr6	gr6.4xlarge gr6.8xlarge
Inf1	inf1.xlarge inf1.2xlarge inf1.6xlarge inf1.24xlarge
Inf2	inf2.xlarge inf2.8xlarge inf2.24xlarge inf2.48xlarge
P2	p2.xlarge p2.8xlarge p2.16xlarge
P3	p3.2xlarge p3.8xlarge p3.16xlarge
P3dn	p3dn.24xlarge
P4d	p4d.24xlarge
P4de	p4de.24xlarge
P5	p5.48xlarge
Trn1	trn1.2xlarge trn1.32xlarge
Trn1n	trn1n.32xlarge
VT1	vt1.3xlarge vt1.6xlarge vt1.24xlarge

Platform summary

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
DL1	Nitro	Intel (x86_64)	x	✓	✓	x	Linux
DL2q	Nitro	Intel (x86_64)	x	x	x	x	Linux
F1	Xen	Intel (x86_64)	x	✓	✓	x	Linux
G3	Xen	Intel (x86_64)	x	✓	✓	x	Windows Linux
G4ad	Nitro	AMD (x86_64)	x	✓	✓	x	Windows Linux
G4dn	Nitro	Intel (x86_64)	✓	✓	✓	x	Windows Linux
G5	Nitro	AMD (x86_64)	x	✓	✓	x	Windows Linux
G5g	Nitro	AWS Graviton (arm64)	✓	✓	✓	x	Linux
G6	Nitro	AMD (x86_64)	x	✓	✓	x	Windows Linux
Gr6	Nitro	AMD (x86_64)	x	x	✓	x	Windows Linux

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
Inf1	Nitro	Intel (x86_64)	X	✓	✓	X	Linux
Inf2	Nitro	AMD (x86_64)	X	✓	✓	X	Linux
P2	Xen	Intel (x86_64)	X	✓	✓	X	Windows Linux
P3	Xen	Intel (x86_64)	X	✓	✓	X	Windows Linux
P3dn	Nitro	Intel (x86_64)	X	X	✓	X	Windows Linux
P4d	Nitro	Intel (x86_64)	X	✓	✓	X	Linux
P4de	Nitro	Intel (x86_64)	X	✓	X	X	Linux
P5	Nitro	AMD (x86_64)	X	✓	✓	X	Linux
Trn1	Nitro	Intel (x86_64)	X	✓	✓	X	Linux
Trn1n	Nitro	Intel (x86_64)	X	X	✓	X	Linux
VT1	Nitro	Intel (x86_64)	X	X	✓	X	Linux

Performance specifications

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
DL1							
dl1.24xlarge	x	768.00	Intel Xeon P-8275CL	96	48	2	8 x GPU
DL2q							
dl2q.24xlarge	x	768.00	Intel Xeon Cascade Lake	96	48	2	8 x inference accelerator
F1							
f1.2xlarge	x	122.00	Intel Xeon E5-2686v4	8	4	2	1 x FPGA
f1.4xlarge	x	244.00	Intel Xeon E5-2686v4	16	8	2	2 x FPGA
f1.16xlarge	x	976.00	Intel Xeon E5-2686v4	64	32	2	8 x FPGA
G3							
g3.4xlarge	x	122.00	Intel Xeon E5-2686 v4	16	8	2	1 x GPU
g3.8xlarge	x	244.00	Intel Xeon E5-2686 v4	32	16	2	2 x GPU
g3.16xlarge	x	488.00	Intel Xeon E5-2686 v4	64	32	2	4 x GPU
G4ad							

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
g4ad.xlarge	X	16.00	2nd Gen AMD EPYC 7R32	4	2	2	1 x GPU
g4ad.2xlarge	X	32.00	2nd Gen AMD EPYC 7R32	8	4	2	1 x GPU
g4ad.4xlarge	X	64.00	2nd Gen AMD EPYC 7R32	16	8	2	1 x GPU
g4ad.8xlarge	X	128.00	2nd Gen AMD EPYC 7R32	32	16	2	2 x GPU
g4ad.16xlarge	X	256.00	2nd Gen AMD EPYC 7R32	64	32	2	4 x GPU
G4dn							
g4dn.xlarge	X	16.00	Intel Xeon P-8259L	4	2	2	1 x GPU
g4dn.2xlarge	X	32.00	Intel Xeon P-8259L	8	4	2	1 x GPU
g4dn.4xlarge	X	64.00	Intel Xeon P-8259L	16	8	2	1 x GPU
g4dn.8xlarge	X	128.00	Intel Xeon P-8259L	32	16	2	1 x GPU
g4dn.12xlarge	X	192.00	Intel Xeon P-8259L	48	24	2	4 x GPU
g4dn.16xlarge	X	256.00	Intel Xeon P-8259L	64	32	2	1 x GPU

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
g4dn.metal	X	384.00	Intel Xeon P-8259L	96	48	2	8 x GPU
G5							
g5.xlarge	X	16.00	2nd Gen AMD EPYC 7R32	4	2	2	1 x GPU
g5.2xlarge	X	32.00	2nd Gen AMD EPYC 7R32	8	4	2	1 x GPU
g5.4xlarge	X	64.00	2nd Gen AMD EPYC 7R32	16	8	2	1 x GPU
g5.8xlarge	X	128.00	2nd Gen AMD EPYC 7R32	32	16	2	1 x GPU
g5.12xlarge	X	192.00	2nd Gen AMD EPYC 7R32	48	24	2	4 x GPU
g5.16xlarge	X	256.00	2nd Gen AMD EPYC 7R32	64	32	2	1 x GPU
g5.24xlarge	X	384.00	2nd Gen AMD EPYC 7R32	96	48	2	4 x GPU
g5.48xlarge	X	768.00	2nd Gen AMD EPYC 7R32	192	96	2	8 x GPU
G5g							
g5g.xlarge	X	8.00	AWS Graviton2 Processor	4	4	1	1 x GPU
g5g.2xlarge	X	16.00	AWS Graviton2 Processor	8	8	1	1 x GPU

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
g5g.4xlarge	X	32.00	AWS Graviton2 Processor	16	16	1	1 x GPU
g5g.8xlarge	X	64.00	AWS Graviton2 Processor	32	32	1	1 x GPU
g5g.16xlarge	X	128.00	AWS Graviton2 Processor	64	64	1	2 x GPU
g5g.metal	X	128.00	AWS Graviton2 Processor	64	64	1	2 x GPU
G6							
g6.xlarge	X	16.00	AMD EPYC 7R13	4	2	2	1 x GPU
g6.2xlarge	X	32.00	AMD EPYC 7R13	8	4	2	1 x GPU
g6.4xlarge	X	64.00	AMD EPYC 7R13	16	8	2	1 x GPU
g6.8xlarge	X	128.00	AMD EPYC 7R13	32	16	2	1 x GPU
g6.12xlarge	X	192.00	AMD EPYC 7R13	48	24	2	4 x GPU
g6.16xlarge	X	256.00	AMD EPYC 7R13	64	32	2	1 x GPU
g6.24xlarge	X	384.00	AMD EPYC 7R13	96	48	2	4 x GPU

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
g6.48xlarge	x	768.00	AMD EPYC 7R13	192	96	2	8 x GPU
Gr6							
gr6.4xlarge	x	128.00	AMD EPYC 7R13	16	8	2	1 x GPU
gr6.8xlarge	x	256.00	AMD EPYC 7R13	32	16	2	1 x GPU
Inf1							
inf1.xlarge	x	8.00	Intel Xeon P-8259L	4	2	2	1 x inference accelerator
inf1.2xlarge	x	16.00	Intel Xeon P-8259L	8	4	2	1 x inference accelerator
inf1.6xlarge	x	48.00	Intel Xeon P-8259L	24	12	2	4 x inference accelerator
inf1.24xlarge	x	192.00	Intel Xeon P-8259L	96	48	2	16 x inference accelerator
Inf2							
inf2.xlarge	x	16.00	AMD EPYC 7R13	4	2	2	1 x inference accelerator

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
inf2.8xlarge	X	128.00	AMD EPYC 7R13	32	16	2	1 x inference accelerator
inf2.24xlarge	X	384.00	AMD EPYC 7R13	96	48	2	6 x inference accelerator
inf2.48xlarge	X	768.00	AMD EPYC 7R13	192	96	2	12 x inference accelerator

P2

p2.xlarge	X	61.00	Intel Xeon E5-2686v4	4	2	2	1 x GPU
p2.8xlarge	X	488.00	Intel Xeon E5-2686v4	32	16	2	8 x GPU
p2.16xlarge	X	732.00	Intel Xeon E5-2686 v4	64	32	2	16 x GPU

P3

p3.2xlarge	X	61.00	Intel Xeon E5-2686 v4	8	4	2	1 x GPU
p3.8xlarge	X	244.00	Intel Xeon E5-2686 v4	32	16	2	4 x GPU
p3.16xlarge	X	488.00	Intel Xeon E5-2686 v4	64	32	2	8 x GPU

P3dn

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
p3dn.24xlarge	x	768.00	Intel Xeon Platinum 8175	96	48	2	8 x GPU
P4d							
p4d.24xlarge	x	1152.00	Intel Xeon Platinum 8175	96	48	2	8 x GPU
P4de							
p4de.24xlarge	x	1152.00	Intel Xeon Platinum 8175	96	48	2	8 x GPU
P5							
p5.48xlarge	x	2048.00	AMD EPYC 7R13	192	96	2	8 x GPU
Trn1							
trn1.2xlarge	x	32.00	Intel Xeon Ice Lake 8375C	8	4	2	x
trn1.32xlarge	x	512.00	Intel Xeon Ice Lake 8375C	128	64	2	x
Trn1n							
trn1n.32xlarge	x	512.00	Intel Xeon Ice Lake	128	64	2	x
VT1							
vt1.3xlarge	x	24.00	Intel Cascade Lake P-8259CL	12	6	2	x

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
vt1.6xlarge	X	48.00	Intel Cascade Lake P-8259CL	24	12	2	X
vt1.24xlarge	X	192.00	Intel Cascade Lake P-8259CL	96	48	2	X

Note

trn1n.32xlarge instances feature 16 Trainium Accelerators.

Trn1 instances feature the following number of Trainium Accelerators.

- trn1.2xlarge — 1
- trn1.32xlarge — 16

VT1 instances feature the following number of U30 Accelerators.

- vt1.3xlarge — 1
- vt1.6xlarge — 2
- vt1.24xlarge — 16

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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DL1

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
dl1.24xlarge	4x 100 Gigabit	✓	✓	✗	4	60	50	✓
DL2q								
dl2q.24xlarge	100 Gigabit	✓	✓	✗	1	15	50	✓
F1								
f1.2xlarge ¹	Up to 10 Gigabit	✗	✓	✗	1	4	15	✓
f1.4xlarge ¹	Up to 10 Gigabit	✗	✓	✗	1	8	30	✓
f1.16xlarge	25 Gigabit	✗	✓	✗	1	8	50	✓
G3								
g3.4xlarge ¹	Up to 10 Gigabit	✗	✓	✗	1	8	30	✓
g3.8xlarge	10 Gigabit	✗	✓	✗	1	8	30	✓
g3.16xlarge	25 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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
g4ad.8xlarge	15 Gigabit	x	✓	x	1	4	15	✓
g4ad.16xlarge	25 Gigabit	x	✓	x	1	8	30	✓
G4dn								
g4dn.xlarge ¹	5.0 / 25.0	x	✓	x	1	3	10	✓
g4dn.2xlarge ₁	10.0 / 25.0	x	✓	x	1	3	10	✓
g4dn.4xlarge ₁	20.0 / 25.0	x	✓	x	1	3	10	✓
g4dn.8xlarge	50 Gigabit	✓	✓	x	1	4	15	✓
g4dn.12xlarge	50 Gigabit	✓	✓	x	1	8	30	✓
g4dn.16xlarge	50 Gigabit	✓	✓	x	1	4	15	✓
g4dn.metal	100 Gigabit	✓	✓	x	1	15	50	✓
G5								
g5.xlarge ¹	2.5 / 10.0	x	✓	x	1	4	15	✓
g5.2xlarge ¹	5.0 / 10.0	x	✓	x	1	4	15	✓
g5.4xlarge ¹	10.0 / 25.0	x	✓	x	1	8	30	✓
g5.8xlarge	25 Gigabit	✓	✓	x	1	8	30	✓
g5.12xlarge	40 Gigabit	✓	✓	x	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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	✓
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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
g6.24xlarge	50 Gigabit	✓	✓	✗	1	15	50	✓
g6.48xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
Gr6								
gr6.4xlarge ¹	10.0 / 25.0	✗	✓	✗	1	8	30	✓
gr6.8xlarge	25 Gigabit	✓	✓	✗	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	✓
inf2.48xlarge	100 Gigabit	✗	✓	✗	1	15	50	✓
P2								
p2.xlarge	High	✗	✓	✗	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
p2.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
p2.16xlarge	25 Gigabit	x	✓	x	1	8	30	✓
P3								
p3.2xlarge ¹	Up to 10 Gigabit	x	✓	x	1	4	15	✓
p3.8xlarge	10 Gigabit	x	✓	x	1	8	30	✓
p3.16xlarge	25 Gigabit	x	✓	x	1	8	30	✓
P3dn								
p3dn.24xlarge	100 Gigabit	✓	✓	x	1	15	50	✓
P4d								
p4d.24xlarge	4x 100 Gigabit	✓	✓	x	4	60	50	✓
P4de								
p4de.24xlarge	4x 100 Gigabit	✓	✓	x	4	60	50	✓
P5								
p5.48xlarge	3200 Gigabit	✓	✓	x	32	64	50	✓
Trn1								
trn1.2xlarge ¹	3.125 / 12.5	x	✓	x	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
trn1.32xlarge	8x 100 Gigabit	✓	✓	✗	8	40	50	✓
Trn1n								
trn1n.32xlarge	16x 100 Gigabit	✓	✓	✗	16	80	50	✓
VT1								
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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
DL1					
dl1.24xlarge	19000.00	2375.00	80000.00	✓	default
DL2q					
dl2q.24xlarge	19000.00	2375.00	80000.00	✓	default
F1					
f1.2xlarge	1700.00	212.50	12000.00	✗	default
f1.4xlarge	3500.00	437.50	44000.00	✗	default
f1.16xlarge	14000.00	1750.00	75000.00	✗	default
G3					
g3.4xlarge	3500.00	437.50	20000.00	✗	default
g3.8xlarge	7000.00	875.00	40000.00	✗	default
g3.16xlarge	14000.00	1750.00	80000.00	✗	default
G4ad					
g4ad.xlarge ¹	400.00 / 3170.00	50.00 / 396.25	1700.00 / 13333.00	✓	default
g4ad.2xlarge ¹	800.00 / 3170.00	100.00 / 396.25	3400.00 / 13333.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
g4ad.4xlarge ¹	1580.00 / 3170.00	197.50 / 396.25	6700.00 / 13333.00	✓	default
g4ad.8xlarge	3170.00	396.25	13333.00	✓	default
g4ad.16xlarge	6300.00	787.50	26667.00	✓	default
G4dn					
g4dn.xlarge ¹	950.00 / 3500.00	118.75 / 437.50	3000.00 / 20000.00	✓	default
g4dn.2xlarge ¹	1150.00 / 3500.00	143.75 / 437.50	6000.00 / 20000.00	✓	default
g4dn.4xlarge	4750.00	593.75	20000.00	✓	default
g4dn.8xlarge	9500.00	1187.50	40000.00	✓	default
g4dn.12xlarge	9500.00	1187.50	40000.00	✓	default
g4dn.16xlarge	9500.00	1187.50	40000.00	✓	default
g4dn.metal	19000.00	2375.00	80000.00	✓	default
G5					
g5.xlarge ¹	700.00 / 3500.00	87.50 / 437.50	3000.00 / 15000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
g5.2xlarge ¹	850.00 / 3500.00	106.25 / 437.50	3500.00 / 15000.00	✓	default
g5.4xlarge	4750.00	593.75	20000.00	✓	default
g5.8xlarge	16000.00	2000.00	65000.00	✓	default
g5.12xlarge	16000.00	2000.00	65000.00	✓	default
g5.16xlarge	16000.00	2000.00	65000.00	✓	default
g5.24xlarge	19000.00	2375.00	80000.00	✓	default
g5.48xlarge	19000.00	2375.00	80000.00	✓	default
G5g					
g5g.xlarge ¹	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
g5g.2xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	default
g5g.4xlarge	4750.00	593.75	20000.00	✓	default
g5g.8xlarge	9500.00	1187.50	40000.00	✓	default
g5g.16xlarge	19000.00	2375.00	80000.00	✓	default
g5g.metal	19000.00	2375.00	80000.00	✓	default
G6					
g6.xlarge ¹	1000.00 / 5000.00	125.00 / 625.00	4000.00 / 20000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
g6.2xlarge ¹	2000.00 / 5000.00	250.00 / 625.00	8000.00 / 20000.00	✓	default
g6.4xlarge	8000.00	1000.00	32000.00	✓	default
g6.8xlarge	16000.00	2000.00	64000.00	✓	default
g6.12xlarge	20000.00	2500.00	80000.00	✓	default
g6.16xlarge	20000.00	2500.00	80000.00	✓	default
g6.24xlarge	30000.00	3750.00	120000.00	✓	default
g6.48xlarge	60000.00	7500.00	240000.00	✓	default
Gr6					
gr6.4xlarge	8000.00	1000.00	32000.00	✓	default
gr6.8xlarge	16000.00	2000.00	64000.00	✓	default
Inf1					
inf1.xlarge ¹	1190.00 / 4750.00	148.75 / 593.75	4000.00 / 20000.00	✓	default
inf1.2xlarge ¹	1190.00 / 4750.00	148.75 / 593.75	6000.00 / 20000.00	✓	default
inf1.6xlarge	4750.00	593.75	20000.00	✓	default
inf1.24xlarge	19000.00	2375.00	80000.00	✓	default
Inf2					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
inf2.xlarge ¹	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
inf2.8xlarge	10000.00	1250.00	40000.00	✓	default
inf2.24xlarge	30000.00	3750.00	120000.00	✓	default
inf2.48xlarge	60000.00	7500.00	240000.00	✓	default
P2					
p2.xlarge	750.00	93.75	6000.00	✗	default
p2.8xlarge	5000.00	625.00	32500.00	✗	default
p2.16xlarge	10000.00	1250.00	65000.00	✗	default
P3					
p3.2xlarge	1750.00	218.75	10000.00	✗	default
p3.8xlarge	7000.00	875.00	40000.00	✗	default
p3.16xlarge	14000.00	1750.00	80000.00	✗	default
P3dn					
p3dn.24xlarge	19000.00	2375.00	80000.00	✓	default
P4d					
p4d.24xlarge	19000.00	2375.00	80000.00	✓	default
P4de					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
p4de.24xlarge	19000.00	2375.00	80000.00	✓	default
P5					
p5.48xlarge	80000.00	10000.00	260000.00	✓	default
Trn1					
trn1.2xlarge ¹	5000.00 / 20000.00	625.00 / 2500.00	16250.00 / 65000.00	✓	default
trn1.32xlarge	80000.00	10000.00	260000.00	✓	default
Trn1n					
trn1n.32xlarge	80000.00	10000.00	260000.00	✓	default
VT1					
vt1.3xlarge ¹	2375.00 / 4750.00	296.88 / 593.75	10000.00 / 20000.00	✓	default
vt1.6xlarge	4750.00	593.75	20000.00	✓	default
vt1.24xlarge	19000.00	2375.00	80000.00	✓	default

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.

² default indicates that instances are enabled for EBS optimization by default.

supported indicates that instances can optionally be enabled for EBS optimization For more information, see [Amazon EBS-optimized instances](#).

Instance store specifications

Instance type	Instance store volumes	Instance store type	Read / Write performance (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			✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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					
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 3800 GB	NVMe SSD	312,500 / 125,000		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
g6.16xlarge	2 x 1900 GB	NVMe SSD	250,000 / 80,000		✓
g6.24xlarge	4 x 3800 GB	NVMe SSD	312,500 / 156,248		✓
g6.48xlarge	8 x 7600 GB	NVMe SSD	625,000 / 312,496		✓
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		✓
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					
p5.48xlarge	8 x 3800 GB	NVMe SSD	4,400,000 / 2,200,000		✓

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓

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	✓

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
F1						
f1.2xlarge	✓	✓	X	X	X	X
f1.4xlarge	✓	✓	X	X	X	X
f1.16xlarge	✓	✓	X	X	X	X
G3						
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
G4ad						
g4ad.xlarge	✓	✓	✓	X	X	X
g4ad.2xlarge	✓	✓	✓	X	X	X
g4ad.4xlarge	✓	✓	✓	X	X	X
g4ad.8xlarge	✓	✓	✓	X	X	X
g4ad.16xlarge	✓	✓	✓	X	X	X
G4dn						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
g4dn.xlarge	✓	✓	✓	X	✓	✓
g4dn.2xlarge	✓	✓	✓	X	✓	✓
g4dn.4xlarge	✓	✓	✓	X	✓	✓
g4dn.8xlarge	✓	✓	✓	X	✓	✓
g4dn.12xlarge	✓	✓	✓	X	✓	✓
g4dn.16xlarge	✓	✓	✓	X	✓	✓
g4dn.metal	✓	✓	✓	X	X	X
G5						
g5.xlarge	✓	✓	✓	X	✓	✓
g5.2xlarge	✓	✓	✓	X	✓	✓
g5.4xlarge	✓	✓	✓	X	✓	✓
g5.8xlarge	✓	✓	✓	X	✓	✓
g5.12xlarge	✓	✓	✓	X	✓	✓
g5.16xlarge	✓	✓	✓	X	✓	✓
g5.24xlarge	✓	✓	✓	X	✓	✓
g5.48xlarge	✓	✓	✓	X	✓	✓
G5g						

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
g6.12xlarge	✓	✓	✓	X	✓	✓
g6.16xlarge	✓	✓	✓	X	✓	✓
g6.24xlarge	✓	✓	✓	X	✓	✓
g6.48xlarge	✓	✓	✓	X	✓	✓
Gr6						
gr6.4xlarge	✓	✓	✓	X	✓	✓
gr6.8xlarge	✓	✓	✓	X	✓	✓
Inf1						
inf1.xlarge	✓	Instance store not supported	✓	X	✓	✓
inf1.2xlarge	✓	Instance store not supported	✓	X	✓	✓
inf1.6xlarge	✓	Instance store not supported	✓	X	✓	✓
inf1.24xlarge	✓	Instance store not supported	✓	X	✓	✓
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	✓	✗	✓	✓
P2						
p2.xlarge	✓	Instance store not supported	✗	✗	✗	✗
p2.8xlarge	✓	Instance store not supported	✗	✗	✗	✗
p2.16xlarge	✓	Instance store not supported	✗	✗	✗	✗
P3						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
p3.2xlarge	✓	Instance store not supported	X	X	X	X
p3.8xlarge	✓	Instance store not supported	X	X	X	X
p3.16xlarge	✓	Instance store not supported	X	X	X	X
P3dn						
p3dn.24xlarge	✓	✓	✓	X	X	✓
P4d						
p4d.24xlarge	✓	✓	✓	X	X	✓
P4de						
p4de.24xlarge	✓	✓	✓	X	X	✓
P5						
p5.48xlarge	✓	✓	✓	X	X	✓
Trn1						
trn1.2xlarge	✓	✓	✓	X	X	X
trn1.32xlarge	✓	✓	✓	X	X	X
Trn1n						

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
trn1n.32xlarge	✓	✓	✓	X	X	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

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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- [Platform summary](#)
- [Performance specifications](#)
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- [Amazon EBS specifications](#)
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Available sizes

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

Platform summary

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

Performance specifications

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
Hpc6a							
hpc6a.48xlarge	X	384.00	AMD EPYC 7R13	96	96	1	X
Hpc6id							
hpc6id.32xlarge	X	1024.00	Intel Xeon Ice Lake	64	64	1	X
Hpc7a							
hpc7a.12xlarge	X	768.00	AMD EPYC 9R14	24	24	1	X
hpc7a.24xlarge	X	768.00	AMD EPYC 9R14	48	48	1	X
hpc7a.48xlarge	X	768.00	AMD EPYC 9R14	96	96	1	X
hpc7a.96xlarge	X	768.00	AMD EPYC 9R14	192	192	1	X
Hpc7g							
hpc7g.4xlarge	X	128.00	AWS Graviton3 E Processor	16	16	1	X
hpc7g.8xlarge	X	128.00	AWS Graviton3 E Processor	32	32	1	X
hpc7g.16xlarge	X	128.00	AWS Graviton3 E Processor	64	64	1	X

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
Hpc6a								
hpc6a.48xlarge	100 Gigabit	✓	✓	x	1	2	50	✓
Hpc6id								
hpc6id.32xlarge	200 Gigabit	✓	✓	x	2	2	50	✓
Hpc7a								
hpc7a.12xlarge	300 Gigabit	✓	✓	x	2	4	50	✓
hpc7a.24xlarge	300 Gigabit	✓	✓	x	2	4	50	✓
hpc7a.48xlarge	300 Gigabit	✓	✓	x	2	4	50	✓
hpc7a.96xlarge	300 Gigabit	✓	✓	x	2	4	50	✓
Hpc7g								
hpc7g.4xlarge	200 Gigabit	✓	✓	x	1	4	50	✓
hpc7g.8xlarge	200 Gigabit	✓	✓	x	1	4	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
hpc7g.16xlarge	200 Gigabit	✓	✓	x	1	4	50	✓

Amazon EBS specifications

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
Hpc6a					
hpc6a.48xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default
Hpc6id					
hpc6id.32xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default
Hpc7a					
hpc7a.12xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default
hpc7a.24xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
hpc7a.48xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default
hpc7a.96xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default
Hpc7g					
hpc7g.4xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default
hpc7g.8xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default
hpc7g.16xlarge ¹	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default

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.

² default indicates that instances are enabled for EBS optimization by default. supported indicates that instances can optionally be enabled for EBS optimization. For more information, see [Amazon EBS-optimized instances](#).

Instance store specifications

Instance type	Instance store volumes	Instance store type	Read / Write performance (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	✓	X	✓	X
Hpc6id						
hpc6id.32xlarge	✓	✓	✓	X	✓	X
Hpc7a						
hpc7a.12xlarge	✓	Instance store not supported	✓	X	X	X

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

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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- [Platform summary](#)
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- [Instance store specifications](#)
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Available sizes

Instance type	Available sizes
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
I2	i2.xlarge i2.2xlarge i2.4xlarge i2.8xlarge
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
R3	r3.large r3.xlarge r3.2xlarge r3.4xlarge r3.8xlarge

Instance type	Available sizes
R4	r4.large r4.xlarge r4.2xlarge r4.4xlarge r4.8xlarge r4.16xlarge
T1	t1.micro

Platform summary

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
A1	Nitro	AWS Graviton (arm64)	✓	✓	✓	✗	Linux
C1	Xen	Intel (x86_64)	✗	✗	✓	✗	Windows Linux
C3	Xen	Intel (x86_64)	✗	✓	✓	✓	Windows Linux
C4	Xen	Intel (x86_64)	✗	✓	✓	✓	Windows Linux
I2	Xen	Intel (x86_64)	✗	✓	✓	✗	Windows Linux
M1	Xen	Intel (x86_64)	✗	✗	✓	✗	Windows Linux
M2	Xen	Intel (x86_64)	✗	✗	✓	✗	Windows Linux

Instance type	Hypervisor	Processor type (architecture)	Metal instances available	Dedicated Hosts support	Spot support	Hibernation support	Supported operating systems
M3	Xen	Intel (x86_64)	✗	✓	✓	✓	Windows Linux
M4	Xen	Intel (x86_64)	✗	✓	✓	✓	Windows Linux
R3	Xen	Intel (x86_64)	✗	✓	✓	✓	Windows Linux
R4	Xen	Intel (x86_64)	✗	✓	✓	✓	Windows Linux
T1	Xen	Intel (i386)	✗	✗	✓	✗	Windows Linux

Performance specifications

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
A1							
a1.medium	✗	2.00	AWS Graviton Processor	1	1	1	✗
a1.large	✗	4.00	AWS Graviton Processor	2	2	1	✗
a1.xlarge	✗	8.00	AWS Graviton Processor	4	4	1	✗

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
a1.2xlarge	X	16.00	AWS Graviton Processor	8	8	1	X
a1.4xlarge	X	32.00	AWS Graviton Processor	16	16	1	X
a1.metal	X	32.00	AWS Graviton Processor	16	16	1	X
C1							
c1.medium	X	1.70	Intel Xeon Family	2	2	1	X
c1.xlarge	X	7.00	Intel Xeon Family	8	8	1	X
C3							
c3.large	X	3.75	Intel Xeon E5-2680v2	2	1	2	X
c3.xlarge	X	7.50	Intel Xeon E5-2680v2	4	2	2	X
c3.2xlarge	X	15.00	Intel Xeon E5-2680v2	8	4	2	X
c3.4xlarge	X	30.00	Intel Xeon E5-2680v2	16	8	2	X
c3.8xlarge	X	60.00	Intel Xeon E5-2680v2	32	16	2	X
C4							

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
c4.large	X	3.75	Intel Xeon E5-2666v3	2	1	2	X
c4.xlarge	X	7.50	Intel Xeon E5-2666v3	4	2	2	X
c4.2xlarge	X	15.00	Intel Xeon E5-2666v3	8	4	2	X
c4.4xlarge	X	30.00	Intel Xeon E5-2666v3	16	8	2	X
c4.8xlarge	X	60.00	Intel Xeon E5-2666v3	36	18	2	X
I2							
i2.xlarge	X	30.50	Intel Xeon E5-2670v2	4	2	2	X
i2.2xlarge	X	61.00	Intel Xeon E5-2670v2	8	4	2	X
i2.4xlarge	X	122.00	Intel Xeon E5-2670v2	16	8	2	X
i2.8xlarge	X	244.00	Intel Xeon E5-2670v2	32	16	2	X
M1							
m1.small	X	1.70	Intel Xeon Family	1	1	1	X
m1.medium	X	3.70	Intel Xeon Family	1	1	1	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
m1.large	X	7.50	Intel Xeon Family	2	2	1	X
m1.xlarge	X	15.00	Intel Xeon Family	4	4	1	X
M2							
m2.xlarge	X	17.10	Intel Xeon Family	2	2	1	X
m2.2xlarge	X	34.20	Intel Xeon Family	4	4	1	X
m2.4xlarge	X	68.40	Intel Xeon Family	8	8	1	X
M3							
m3.medium	X	3.75	Intel Xeon E5-2670v2	1	1	1	X
m3.large	X	7.50	Intel Xeon E5-2670v2	2	1	2	X
m3.xlarge	X	15.00	Intel Xeon E5-2670v2	4	2	2	X
m3.2xlarge	X	30.00	Intel Xeon E5-2670v2	8	4	2	X
M4							
m4.large	X	8.00	Intel Xeon E5-2676v3	2	1	2	X

Instance type	Burstable	Memory (GiB)	Processor	vCPUs	CPU cores	Threads per core	Accelerators
m4.xlarge	X	16.00	Intel Xeon E5-2676v3	4	2	2	X
m4.2xlarge	X	32.00	Intel Xeon E5-2676v3	8	4	2	X
m4.4xlarge	X	64.00	Intel Xeon E5-2676v3	16	8	2	X
m4.10xlarge	X	160.00	Intel Xeon E5-2676v3	40	20	2	X
m4.16xlarge	X	256.00	Intel Xeon E5-2686v4	64	32	2	X
R3							
r3.large	X	15.00	Intel Xeon E5-2670v2	2	1	2	X
r3.xlarge	X	30.50	Intel Xeon E5-2670v2	4	2	2	X
r3.2xlarge	X	61.00	Intel Xeon E5-2670v2	8	4	2	X
r3.4xlarge	X	122.00	Intel Xeon E5-2670v2	16	8	2	X
r3.8xlarge	X	244.00	Intel Xeon E5-2670v2	32	16	2	X
R4							
r4.large	X	15.25	Intel Broadwell E5-2686v4	2	1	2	X

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

Network specifications

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
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								
c4.large	Moderate	x	x ²	x	1	3	10	✓
c4.xlarge	High	x	x ²	x	1	4	15	✓
c4.2xlarge	High	x	x ²	x	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
c4.4xlarge	High	x	x ²	x	1	8	30	✓
c4.8xlarge	10 Gigabit	x	x ²	x	1	8	30	✓
I2								
i2.xlarge	Moderate	x	x ²	x	1	4	15	✓
i2.2xlarge	High	x	x ²	x	1	4	15	✓
i2.4xlarge	High	x	x ²	x	1	8	30	✓
i2.8xlarge	10 Gigabit	x	x ²	x	1	8	30	✓
M1								
m1.small	Low	x	x	x	1	2	4	x
m1.medium	Moderate	x	x	x	1	2	6	x
m1.large	Moderate	x	x	x	1	3	10	x
m1.xlarge	High	x	x	x	1	4	15	x
M2								
m2.xlarge	Moderate	x	x	x	1	4	15	x
m2.2xlarge	Moderate	x	x	x	1	4	30	x
m2.4xlarge	High	x	x	x	1	8	30	x
M3								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interfaces per network card	IP addresses per interface	IPv6
m3.medium	Moderate	X	X	X	1	2	6	X
m3.large	Moderate	X	X	X	1	3	10	X
m3.xlarge	High	X	X	X	1	4	15	X
m3.2xlarge	High	X	X	X	1	4	30	X
M4								
m4.large	Moderate	X	X ²	X	1	2	10	✓
m4.xlarge	High	X	X ²	X	1	4	15	✓
m4.2xlarge	High	X	X ²	X	1	4	15	✓
m4.4xlarge	High	X	X ²	X	1	8	30	✓
m4.10xlarge	10 Gigabit	X	X ²	X	1	8	30	✓
m4.16xlarge	25 Gigabit	X	✓	X	1	8	30	✓
R3								
r3.large	Moderate	X	X ²	X	1	3	10	✓
r3.xlarge	Moderate	X	X ²	X	1	4	15	✓
r3.2xlarge	High	X	X ²	X	1	4	15	✓
r3.4xlarge	High	X	X ²	X	1	8	30	✓
r3.8xlarge	10 Gigabit	X	X ²	X	1	8	30	✓

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

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
A1					
a1.medium ¹	300.00 / 3500.00	37.50 / 437.50	2500.00 / 20000.00	✓	default
a1.large ¹	525.00 / 3500.00	65.62 / 437.50	4000.00 / 20000.00	✓	default
a1.xlarge ¹	800.00 / 3500.00	100.00 / 437.50	6000.00 / 20000.00	✓	default
a1.2xlarge ¹	1750.00 / 3500.00	218.75 / 437.50	10000.00 / 20000.00	✓	default
a1.4xlarge	3500.00	437.50	20000.00	✓	default
a1.metal	3500.00	437.50	20000.00	✓	default
C1					
c1.xlarge	1000.00	125.00	8000.00	✗	supported
C3					
c3.xlarge	500.00	62.50	4000.00	✗	supported
c3.2xlarge	1000.00	125.00	8000.00	✗	supported
c3.4xlarge	2000.00	250.00	16000.00	✗	supported
C4					

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
c4.large	500.00	62.50	4000.00	x	default
c4.xlarge	750.00	93.75	6000.00	x	default
c4.2xlarge	1000.00	125.00	8000.00	x	default
c4.4xlarge	2000.00	250.00	16000.00	x	default
c4.8xlarge	4000.00	500.00	32000.00	x	default
I2					
i2.xlarge	500.00	62.50	4000.00	x	supported
i2.2xlarge	1000.00	125.00	8000.00	x	supported
i2.4xlarge	2000.00	250.00	16000.00	x	supported
M1					
m1.large	500.00	62.50	4000.00	x	supported
m1.xlarge	1000.00	125.00	8000.00	x	supported
M2					
m2.2xlarge	500.00	62.50	4000.00	x	supported
m2.4xlarge	1000.00	125.00	8000.00	x	supported
M3					
m3.xlarge	500.00	62.50	4000.00	x	supported
m3.2xlarge	1000.00	125.00	8000.00	x	supported

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
M4					
m4.large	450.00	56.25	3600.00	x	default
m4.xlarge	750.00	93.75	6000.00	x	default
m4.2xlarge	1000.00	125.00	8000.00	x	default
m4.4xlarge	2000.00	250.00	16000.00	x	default
m4.10xlarge	4000.00	500.00	32000.00	x	default
m4.16xlarge	10000.00	1250.00	65000.00	x	default
R3					
r3.xlarge	500.00	62.50	4000.00	x	supported
r3.2xlarge	1000.00	125.00	8000.00	x	supported
r3.4xlarge	2000.00	250.00	16000.00	x	supported
R4					
r4.large	425.00	53.12	3000.00	x	default
r4.xlarge	850.00	106.25	6000.00	x	default
r4.2xlarge	1700.00	212.50	12000.00	x	default
r4.4xlarge	3500.00	437.50	18750.00	x	default
r4.8xlarge	7000.00	875.00	37500.00	x	default
r4.16xlarge	14000.00	1750.00	75000.00	x	default

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization ²
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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.

² default indicates that instances are enabled for EBS optimization by default. supported indicates that instances can optionally be enabled for EBS optimization. For more information, see [Amazon EBS-optimized instances](#).

Instance store specifications

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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C1

c1.medium	1 x 350 GB	HDD		✓	
c1.xlarge	4 x 420 GB	HDD		✓	

C3

c3.large	2 x 16 GB	SSD		✓	
c3.xlarge	2 x 40 GB	SSD		✓	

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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		✓	
M3					
m3.medium	1 x 4 GB	SSD		✓	

Instance type	Instance store volumes	Instance store type	Read / Write performance (IOPS)	Needs initialization ¹	TRIM support ²
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						
a1.medium	✓	Instance store not supported	X	X	X	X

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c3.xlarge	✓	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
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						

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

Instance type	EBS encryption	Instance store encryption	Encryption in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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
m4.16xlarge	✓	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.

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.

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 | 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
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | X1 | X2gd | X2idn | X2iedn | X1e | z1d
- **Storage Optimized:** D2 | D3 | H1 | I2 | I3 | I3en | I4g | I4i | Im4gn | Is4gen
- **Accelerated Computing:** G3 | G4ad | G4dn | G5 | G6 | Gr6 | Inf1 | Inf2 | P2 | P3 | P4d | P5 | Trn1 | Trn1n
- **High Performance Computing:** Hpc6a | Hpc6id | Hpc7a
- **Previous Generation:** A1 | C4 | I2 | M4 | R3 | R4

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 | Mac1 | Mac2 | 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
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | X1 | X2gd | X2idn | X2iedn | X2iezn | X1e | z1d
- **Storage Optimized:** D2 | D3 | D3en | H1 | I2 | I3 | I3en | I4g | I4i | Im4gn | Is4gen
- **Accelerated Computing:** DL1 | F1 | G3 | G4ad | G4dn | G5 | G5g | G6 | Gr6 | Inf1 | Inf2 | P2 | P3 | P3dn | P4d | P5 | Trn1 | Trn1n | VT1
- **High Performance Computing:** Hpc7g
- **Previous Generation:** A1 | C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

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 | M6idn | M6in | M7g | M7gd | M7i | M7i-flex | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6in | C7g | C7gd | C7i
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5d | R5n | R6a | R6g | R6gd | R6i | R7g | R7gd | R7i | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | I2 | I3 | I3en | I4i
- **Accelerated Computing:** G3 | G4dn | Inf1
- **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 | Mac1 | Mac2 | 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

- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | X1 | X2gd | X2idn | X2iedn | X2iezn | X1e | z1d
- **Storage Optimized:** D2 | D3 | D3en | H1 | I2 | I3 | I3en | I4g | I4i | Im4gn | Is4gen
- **Accelerated Computing:** DL1 | DL2q | F1 | G3 | G4ad | G4dn | G5 | G5g | G6 | Gr6 | Inf1 | Inf2 | P2 | P3 | P3dn | P4d | P5 | 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 | T3 | T4g
- **Compute Optimized:** C5 | C5a | C5ad | C5d | C5n | C6g | C6i | C6in
- **Memory Optimized:** R5 | R5d | R5dn | R5n | R6g | R6i | X1 | X2idn | X2iedn | X1e
- **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 | T3 | T4g
- **Compute Optimized:** C5 | C5a | C5d | C5n | C6g | C6gn | C6i | C6in
- **Memory Optimized:** R5 | R5d | R5n | R6g | R6i | 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 | T3 | T4g

- **Compute Optimized:** C5 | C5d | C6g | C6i | C6in | C7g
- **Memory Optimized:** R5 | R5d | R6g | R6i | R7g | U-9tb1 | 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 | T3 | T4g
- **Compute Optimized:** C5 | C5d | C5n | C6g | C6gd | C6gn | C6in
- **Memory Optimized:** R5 | R5d | R6g | R6gd | R7i | X2idn | X2iedn
- **Storage Optimized:** I3 | I3en | I4i
- **Accelerated Computing:** G5

Asia Pacific (Melbourne) — ap-southeast-4

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

- **General Purpose:** M5 | M5d | M6g | M6gd | T3 | T4g
- **Compute Optimized:** C5 | C5d | C6g | C6in
- **Memory Optimized:** R5 | R5d | R6g
- **Storage Optimized:** I3 | I3en | I4i

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 | M7g | M7gd | M7i | M7i-flex | Mac1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6in | C7g | C7gd | C7i
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5d | R5n | R6a | R6g | R6gd | R6i | R6id | R7g | R7gd | R7i | U-6tb1 | U-12tb1 | X1 | X2idn | X2iedn | X1e | z1d
- **Storage Optimized:** D2 | D3 | I2 | I3 | I3en | I4i | I4gen

- **Accelerated Computing:** G4dn | G5 | Inf1 | Inf2 | P2
- **Previous Generation:** A1 | C4 | I2 | M4 | R3 | R4

Asia Pacific (Osaka) — ap-northeast-3

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

- **General Purpose:** M4 | M5 | M5d | M6g | M6gd | M6i | T2 | T3 | T4g
- **Compute Optimized:** C4 | C5 | C5d | C5n | C6g | C6gd | C6gn | C6i
- **Memory Optimized:** R4 | R5 | R5d | R6g | R6gd | R6i | X1 | X2idn | X2iedn | X1e
- **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 | M7i | M7i-flex | Mac1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7i
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6g | R6gd | R6i | R6id | R7g | R7i | U-6tb1 | U-9tb1 | U-12tb1 | U-24tb1 | X1 | X2idn | X2iedn | X1e | z1d
- **Storage Optimized:** D2 | I2 | I3 | I3en | I4i
- **Accelerated Computing:** G3 | G4dn | G5 | G5g | Inf1 | P2 | P3 | P4d
- **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 | 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
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7g | R7gd | R7i | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | X1 | X2idn | X2iedn | X1e | z1d
- **Storage Optimized:** D2 | D3 | D3en | I2 | I3 | I3en | I4g | I4i | Im4gn | Is4gen
- **Accelerated Computing:** G3 | G4dn | G5g | Inf1 | Inf2 | P2 | P3
- **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 | M7g | M7gd | M7i | M7i-flex | 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
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6id | R7g | R7gd | R7i | U-3tb1 | U-6tb1 | U-12tb1 | X1 | X2idn | X2iedn | X1e | z1d
- **Storage Optimized:** D2 | D3 | I2 | I3 | I3en | I4i | Im4gn | Is4gen
- **Accelerated Computing:** F1 | G3 | G4dn | G5 | Inf1 | P2 | P3
- **High Performance Computing:** Hpc6a
- **Previous Generation:** A1 | C1 | C3 | C4 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

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 | 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
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | X1 | X2idn | X2iedn | X2iezn | X1e | z1d
- **Storage Optimized:** D2 | D3 | D3en | I2 | I3 | I3en | I4i | Im4gn | Is4gen
- **Accelerated Computing:** G3 | G4ad | G4dn | G5 | G5g | Inf1 | Inf2 | P2 | P3 | P3dn | P4d | 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 | M7g | M7i | M7i-flex | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6in | C7g | C7i
- **Memory Optimized:** R4 | R5 | R5a | R5ad | R5b | R5d | R5n | R6g | R6gd | R6i | R7g | R7i | U-3tb1 | U-6tb1 | X1 | X2idn | X2iedn | X1e
- **Storage Optimized:** D2 | D3 | I3 | I3en | I4g | I4i | Im4gn | Is4gen
- **Accelerated Computing:** G3 | G4ad | G4dn | G5 | Inf1 | P3
- **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
- **Memory Optimized:** R5 | R6g | R6i | R6id
- **Storage Optimized:** I3en | I4i

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 | 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
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | X1 | X2idn | X2iedn | X1e | z1d
- **Storage Optimized:** D2 | D3 | D3en | I2 | I3 | I3en | I4i | Im4gn | Is4gen
- **Accelerated Computing:** DL2q | F1 | G3 | G4ad | G4dn | G5 | G5g | Inf1 | Inf2 | P2 | P3 | P4d
- **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 | 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
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | X1 | X2gd | X2idn | X2iedn | X2iezn | X1e | z1d
- **Storage Optimized:** D2 | D3 | D3en | H1 | I2 | I3 | I3en | I4g | I4i | Im4gn | Is4gen
- **Accelerated Computing:** F1 | G3 | G4ad | G4dn | G5 | Inf1 | Inf2 | P2 | 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 | M7g | M7i | M7i-flex | Mac1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g | C7i
- **Memory Optimized:** R4 | R5 | R5a | R5ad | R5b | R5d | R5n | R6g | R6gd | R6i | R6id | R7g | R7i | U-6tb1 | U-9tb1 | X1 | X2idn | X2iedn | z1d
- **Storage Optimized:** D2 | D3 | I3 | I3en | I4i | Im4gn | Is4gen
- **Accelerated Computing:** F1 | G3 | G4ad | G4dn | G5 | Inf1 | P3
- **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
- **Memory Optimized:** R5 | R5a | R5b | R5d | R5dn | R5n | R6g | R6i | U-3tb1 | U-6tb1 | U-12tb1 | 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 | M6g | M6gd | M6i | M7g | M7gd | M7i | M7i-flex | T2 | T3 | T3a | T4g
- **Compute Optimized:** C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6in
- **Memory Optimized:** R4 | R5 | R5a | R5ad | R5d | R5dn | R5n | R6g | R6gd | R6i | R7i | U-6tb1 | X1 | X2idn | X2iedn

- **Storage Optimized:** D2 | I3 | I3en | I4i | I4gn | I4gen
- **Accelerated Computing:** G4dn | Inf1
- **Previous Generation:** R4

Europe (Spain) — eu-south-2

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

- **General Purpose:** M5 | M5d | M6g | M6gd | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | T3 | T4g
- **Compute Optimized:** C5 | C5d | C6g | C6in | C7a | C7g | C7gd | C7i
- **Memory Optimized:** R5 | R5d | R6g | R7a | R7g | R7gd | R7i | U-6tb1 | X2idn | X2iedn
- **Storage Optimized:** I3 | I3en
- **Accelerated Computing:** G5g

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 | Mac1 | T3 | T4g
- **Compute Optimized:** C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6in | C7a | C7g | C7gd | C7i
- **Memory Optimized:** R5 | R5b | R5d | R5dn | R5n | R6g | R6gd | R6i | R6idn | R6in | R7a | R7g | R7gd | R7i | U-6tb1 | U-9tb1 | X2idn | X2iedn
- **Storage Optimized:** D2 | I3 | I3en | I4i
- **Accelerated Computing:** G4dn | G5 | Inf1 | P5
- **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 | T3 | T4g

- **Compute Optimized:** C5 | C5d | C6g | C6gd | C6in
- **Memory Optimized:** R5 | R5d | R6g | R6i | U-6tb1 | X2idn
- **Storage Optimized:** D3 | I3 | I3en | I4i

Israel (Tel Aviv) — **il-central-1**

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

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

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
- **Memory Optimized:** R5 | R5d | R6g | R6i
- **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 | T3 | T4g
- **Compute Optimized:** C5 | C5d | C6g | C6in
- **Memory Optimized:** R5 | R5d | R6g | R6i | X2idn
- **Storage Optimized:** I3 | I3en | I4i
- **Accelerated Computing:** G5

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 | M7i | M7i-flex | T1 | T2 | T3 | T3a | T4g
- **Compute Optimized:** C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6in | C7i
- **Memory Optimized:** R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5n | R6g | R6gd | R6i | R7i | U-3tb1 | U-6tb1 | U-12tb1 | X1 | X2idn | X2iedn | X1e
- **Storage Optimized:** I3 | I3en | I4i
- **Accelerated Computing:** G4dn | G5 | Inf1
- **Previous Generation:** C1 | C3 | C4 | M1 | M2 | M3 | M4 | R3 | R4 | T1

Instances built on the AWS Nitro System

The Nitro System is a collection of hardware and software components built by AWS that enable high performance, high availability, and high security. For more information, see [AWS Nitro System](#).

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.

Virtualized instances

The following virtualized instances are built on the Nitro System:

- **General purpose:** M5 | M5a | M5ad | M5d | M5dn | M5n | M5zn | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i | M7i-flex | T3 | T3a | T4g
- **Compute optimized:** C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7gn | C7i

- **Memory optimized:** R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | X2gd | X2idn | X2iedn | X2iezn | z1d
- **Storage optimized:** D3 | D3en | I3en | I4g | I4i | I4gn | I4gen
- **Accelerated computing:** DL1 | DL2q | G4ad | G4dn | G5 | G5g | G6 | Gr6 | Inf1 | Inf2 | P3dn | P4d | P4de | P5 | Trn1 | Trn1n | VT1
- **High-performance computing:** Hpc6a | Hpc6id | Hpc7a | Hpc7g
- **Previous generation:** A1

Bare metal instances

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

- **General purpose:** m5.metal | m5d.metal | m5dn.metal | m5n.metal | m5zn.metal | m6a.metal | m6g.metal | m6gd.metal | m6i.metal | m6id.metal | m6idn.metal | m6in.metal | m7a.metal-48x1 | m7g.metal | m7gd.metal | m7i.metal-24x1 | m7i.metal-48x1 | mac1.metal | mac2.metal | mac2-m2.metal | mac2-m2pro.metal
- **Compute optimized:** c5.metal | c5d.metal | c5n.metal | c6a.metal | c6g.metal | c6gd.metal | c6i.metal | c6id.metal | c6in.metal | c7a.metal-48x1 | c7g.metal | c7gd.metal | c7gn.metal | c7i.metal-24x1 | c7i.metal-48x1
- **Memory optimized:** r5.metal | r5b.metal | r5d.metal | r5dn.metal | r5n.metal | r6a.metal | r6g.metal | r6gd.metal | r6i.metal | r6idn.metal | r6in.metal | r6id.metal | r7a.metal-48x1 | r7g.metal | r7gd.metal | r7i.metal-24x1 | r7i.metal-48x1 | r7iz.metal-16x1 | r7iz.metal-32x1 | u-6tb1.metal | u-9tb1.metal | u-12tb1.metal | u-18tb1.metal | u-24tb1.metal | x2gd.metal | x2idn.metal | x2iedn.metal | x2iezn.metal | z1d.metal
- **Storage optimized:** i3.metal | i3en.metal | i4i.metal
- **Accelerated computing:** g4dn.metal | g5g.metal
- **Previous generation:** a1.metal

Launching a bare metal instance boots the underlying server, which includes verifying all hardware and firmware components. This means that it can take 20 minutes from the time the instance enters the running state until it becomes available over the network.

Requirements

- Instances built on the Nitro System have the following driver requirements:
 - [NVMe](#) drivers must be installed
 - [Elastic Network Adapter \(ENA\)](#) drivers must be installed

The current AWS Windows AMIs meet these requirements and the following Linux AMIs meet these requirements:

- AL2023
- Amazon Linux 2
- Ubuntu 14.04 or later with the `linux-aws` kernel
- Red Hat Enterprise Linux 7.4 or later
- SUSE Linux Enterprise Server 12 SP2 or later
- CentOS 7.4.1708 or later
- FreeBSD 11.1 or later
- Debian GNU/Linux 9 or later
- Instances with AWS Graviton processors have the following requirements:
 - An AMI for the 64-bit Arm architecture
 - Support for booting through UEFI with ACPI tables and ACPI hot-plug of PCI devices

The following AMIs meet these requirements:

- Amazon Linux 2 (64-bit Arm)
- Ubuntu 16.04 or later (64-bit Arm) with the `linux-aws` kernel
- Red Hat Enterprise Linux 8.0 or later (64-bit Arm)
- SUSE Linux Enterprise Server 15 or later (64-bit Arm)
- Debian 10 or later (64-bit Arm)

Amazon EC2 instance type quotas

The following quotas apply to Amazon EC2 instances by default.

Quotas

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

On-Demand Instance quotas

The following table shows the maximum number of vCPUs that you can provision for On-Demand Instances per instance type. 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
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 per instance type. 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 per instance type.

Name	Default	Adjustable
Running Dedicated a1 Hosts	0	Yes
Running Dedicated c3 Hosts	0	Yes
Running Dedicated c4 Hosts	0	Yes

Name	Default	Adjustable
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
Running Dedicated d2 Hosts	0	Yes
Running Dedicated dl1 Hosts	0	Yes
Running Dedicated f1 Hosts	0	Yes
Running Dedicated g3 Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated g3s 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 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
Running Dedicated i4i 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 m3 Hosts	0	Yes
Running Dedicated m4 Hosts	0	Yes
Running Dedicated m5 Hosts	0	Yes

Name	Default	Adjustable
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
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 mac1 Hosts	0	Yes
Running Dedicated mac2 Hosts	0	Yes
Running Dedicated mac2-m2 Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated mac2-m2pro Hosts	0	Yes
Running Dedicated p2 Hosts	0	Yes
Running Dedicated p3 Hosts	0	Yes
Running Dedicated p3dn Hosts	0	Yes
Running Dedicated p4d Hosts	0	Yes
Running Dedicated p5 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

Name	Default	Adjustable
Running Dedicated r6idn Hosts	0	Yes
Running Dedicated r6in Hosts	0	Yes
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 t3 Hosts	0	Yes
Running Dedicated trn1 Hosts	0	Yes
Running Dedicated trn1n Hosts	0	Yes
Running Dedicated u-12tb1 Hosts	0	Yes
Running Dedicated u-18tb1 Hosts	0	Yes
Running Dedicated u-24tb1 Hosts	0	Yes
Running Dedicated u-3tb1 Hosts	0	Yes
Running Dedicated u-6tb1 Hosts	0	Yes
Running Dedicated u-9tb1 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

Name	Default	Adjustable
Running Dedicated x2idn Hosts	0	Yes
Running Dedicated x2iedn Hosts	0	Yes
Running Dedicated x2iezn Hosts	0	Yes
Running Dedicated z1d Hosts	0	Yes

Document history for the Amazon EC2 Instance Types Guide

The following table describes the documentation releases for Amazon EC2.

Change	Description	Date
New accelerated instance types: g6 and gr6	New high performance GPU-based instance types for deep learning inference and graphics-intensive applications.	April 4, 2024
C7gn bare metal instance	New c7gn.metal bare metal instance type powered by the latest generation AWS Graviton3E processors and the new AWS Nitro cards.	March 26, 2024
New bare metal instances	Bare metal instances for C7gd, M7gd, and R7gd.	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

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
C7g instances	New compute optimized instances featuring AWS Graviton3 processors.	May 23, 2022
I4i instances	New storage optimized instances featuring 3rd generation Intel Xeon Scalable processors (Ice Lake).	April 27, 2022
X2idn and X2iedn instances	New memory optimized instances featuring Intel Xeon Scalable processors (Ice Lake).	March 10, 2022
C6a instances	New compute optimized instances featuring 3rd generation AMD EPYC processors (Milan).	February 14, 2022
X2iezn instances	New memory optimized instances featuring Intel Xeon Platinum processors (Cascade Lake).	January 26, 2022

Hpc6a instances	New compute optimized instances featuring AMD EPYC processors.	January 10, 2022
Im4gn and Is4gen instances	New storage optimized instances.	November 30, 2021
M6a instances	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
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
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