

**Instance Types** 

# **Amazon EC2**



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## **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.

#### **Contents**

- 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 | M7gd | M7i | M7i-flex | Mac1 | Mac2 | Mac2-m1ultra | Mac2-m2 | Mac2-m2pro | T2 | T3 | T3a | T4g

- Compute optimized: C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7a | C7g | C7gd | C7gn | C7i | C7i-flex
- Memory optimized: R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | U7i-12tb | U7in-16tb | U7in-24tb | U7in-32tb | X1 | X2gd | X2idn | X2iedn | X2iezn | X1e | z1d
- Storage optimized: D2 | D3 | D3en | H1 | I3 | I3en | I4g | I4i | Im4gn | Is4gen
- Accelerated computing: DL1 | DL2q | F1 | G4ad | G4dn | G5 | G5g | G6 | G6e | 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: 12

• Accelerated computing: G3

### Instance performance

### **Fixed performance instances**

Fixed performance instances provide fixed CPU resources. These instances can deliver and sustain full CPU performance at any time, and for as long as a workload needs it. If you need consistently

Previous generation instances 2

high CPU performance for applications such as video encoding, high volume websites, or HPC applications, we recommend that you use fixed performance instances.

### **Burstable performance instances**

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

The baseline utilization and ability to burst are governed by CPU credits. Each burstable performance instance continuously earns credits when it stays below the CPU baseline, and continuously spends credits when it bursts above the baseline. For more information, see <a href="Burstable">Burstable</a> performance instances in the Amazon EC2 User Guide.

#### Flex instances

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

M7i-flex and C7i-flex instances running at a high CPU utilization that is consistently above the baseline for long periods of time might see a gradual reduction in the maximum burst CPU throughput. For more information, see M7i-flex instances and C7i-flex instances.

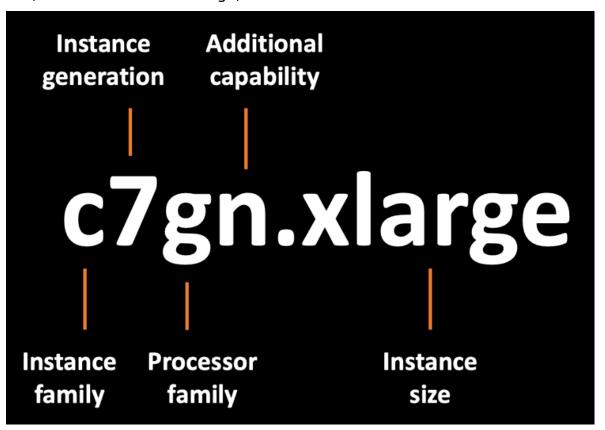
## **Pricing**

For pricing information, see <u>Amazon EC2 Pricing</u>.

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## 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  $4 \times 1 = 1$  for bare metal instances.



Instance families	Processor families	Additional capabilities
<ul> <li>C – Compute optimized</li> <li>D – Dense storage</li> <li>F – FPGA</li> <li>G – Graphics intensive</li> </ul>	<ul> <li>a – AMD processors</li> <li>g – AWS Graviton processor</li> <li>i – Intel processors</li> </ul>	<ul> <li>b – Block storage optimizat ion</li> <li>d – Instance store volumes</li> <li>e – Extra storage or memory</li> <li>flex – Flex instance</li> </ul>

Instance families	Processor families	Additional capabilities
<ul> <li>Hpc – High performance computing</li> </ul>		<ul> <li>n – Network and EBS optimized</li> </ul>
<ul> <li>I – Storage optimized</li> </ul>		• <b>q</b> – Qualcomm inference
<ul> <li>Im – Storage optimized         (1 to 4 ratio of vCPU to memory)     </li> </ul>		<ul><li>z – High performance</li></ul>
<ul> <li>Is – Storage optimized (1 to 6 ratio of vCPU to memory)</li> </ul>		
• Inf – AWS Inferentia		
• <b>M</b> – General purpose		
• Mac – macOS		
• <b>P</b> – GPU accelerated		
• <b>R</b> – Memory optimized		
• <b>T</b> – Burstable performance		
• Trn – AWS Trainium		
• <b>U</b> – High memory		
• VT – Video transcoding		
• X – Memory intensive		

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

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

To determine which instance types meet your requirements, such as supported Regions, compute resources, or storage resources, see <u>Find an Amazon EC2 instance type</u> in the *Amazon EC2 User Guide*.

### **Categories**

- Specifications for Amazon EC2 general purpose instances
- Specifications for Amazon EC2 compute optimized instances
- Specifications for Amazon EC2 memory optimized instances
- Specifications for Amazon EC2 storage optimized instances
- Specifications for Amazon EC2 accelerated computing instances
- Specifications for Amazon EC2 high-performance computing instances
- Specifications for Amazon EC2 previous generation instances

### **Pricing**

For pricing information, see Amazon EC2 On-Demand Pricing.

## Specifications for Amazon EC2 general purpose instances

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

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

#### **Contents**

- Available sizes
- · Platform summary
- Performance specifications
- Network specifications

General purpose

- Amazon EBS specifications
- Instance store specifications
- Security specifications

## Pricing

For pricing information, see Amazon EC2 On-Demand Pricing.

## **Available sizes**

Instance type	Available sizes
M5	<pre>m5.large m5.xlarge m5.2xlarge m5.4xlarge m5.8xlarge  m5.12xlarge m5.16xlarge m5.24xlarge m5.metal</pre>
M5a	m5a.large   m5a.xlarge   m5a.2xlarge   m5a.4xlarge   m5a.8xlar ge   m5a.12xlarge   m5a.16xlarge   m5a.24xlarge
M5ad	<pre>m5ad.large   m5ad.xlarge   m5ad.2xlarge   m5ad.4xlarge   m5ad.8xlarge   m5ad.12xlarge   m5ad.16xlarge   m5ad.24xlarge</pre>
M5d	<pre>m5d.large   m5d.xlarge   m5d.2xlarge   m5d.4xlarge   m5d.8xlar ge   m5d.12xlarge   m5d.16xlarge   m5d.24xlarge   m5d.metal</pre>
M5dn	<pre>m5dn.large  m5dn.xlarge  m5dn.2xlarge  m5dn.4xlarge   m5dn.8xlarge  m5dn.12xlarge  m5dn.16xlarge  m5dn.24xlarge   m5dn.metal</pre>
M5n	m5n.large   m5n.xlarge   m5n.2xlarge   m5n.4xlarge   m5n.8xlar ge   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.8xlar ge   m6a.12xlarge   m6a.16xlarge   m6a.24xlarge   m6a.32xlarge   m6a.48xlarge   m6a.metal

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Instance type	Available sizes					
M6g	<pre>m6g.medium   m6g.large   m6g.xlarge   m6g.2xlarge   m6g.4xlarge   m6g.8xlarge   m6g.12xlarge   m6g.16xlarge   m6g.metal</pre>					
M6gd	<pre>m6gd.medium  m6gd.large  m6gd.xlarge  m6gd.2xlarge   m6gd.4xlarge  m6gd.8xlarge  m6gd.12xlarge  m6gd.16xlarge   m6gd.metal</pre>					
M6i	<pre>m6i.large   m6i.xlarge   m6i.2xlarge   m6i.4xlarge   m6i.8xlar ge   m6i.12xlarge   m6i.16xlarge   m6i.24xlarge   m6i.32xlarge   m6i.metal</pre>					
M6id m6id.large   m6id.xlarge   m6id.2xlarge   m6id.4xlarge m6id.8xlarge   m6id.12xlarge   m6id.16xlarge   m6id.24xlarge   m6id.32xlarge   m6id.metal						
M6idn	<pre>m6idn.large   m6idn.xlarge   m6idn.2xlarge   m6idn.4xlarge   m6idn.8xlarge   m6idn.12xlarge   m6idn.16xlarge   m6idn.24x large   m6idn.32xlarge   m6idn.metal</pre>					
M6in	<pre>m6in.large   m6in.xlarge   m6in.2xlarge   m6in.4xlarge   m6in.8xlarge   m6in.12xlarge   m6in.16xlarge   m6in.24xlarge   m6in.32xlarge   m6in.metal</pre>					
М7а	m7a.medium  m7a.large  m7a.xlarge  m7a.2xlarge  m7a.4xlar ge  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	<pre>m7gd.medium  m7gd.large  m7gd.xlarge  m7gd.2xlarge   m7gd.4xlarge  m7gd.8xlarge  m7gd.12xlarge  m7gd.16xlarge   m7gd.metal</pre>					

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Instance type	Available sizes								
M7i	<pre>m7i.large  m7i.xlarge  m7i.2xlarge  m7i.4xlarge  m7i.8xlar ge  m7i.12xlarge  m7i.16xlarge  m7i.24xlarge  m7i.48xlarge   m7i.metal-24xl  m7i.metal-48xl</pre>								
M7i-flex	<pre>m7i-flex.large  m7i-flex.xlarge  m7i-flex.2xlarge  m7i-flex. 4xlarge  m7i-flex.8xlarge</pre>								
Mac1	mac1.metal								
Mac2	mac2.metal								
Mac2- m1ultra	mac2-m1ultra.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								
Т3	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								

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# **Platform summary**

Instance type	Hyperviso r	Processor type (architec ture)	Metal instance: available	Dedicated Hosts support	Spot support	Hibernati on support	Supported operating systems
M5	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
M5a	Nitro v2	AMD (x86_64)	X	✓	✓	✓	Windows   Linux
M5ad	Nitro v2	AMD (x86_64)	X	X	✓	✓	Windows   Linux
M5d	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
M5dn	Nitro v3	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
M5n	Nitro v3	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
M5zn	Nitro v3	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
M6a	Nitro v4	AMD (x86_64)	✓	✓	✓	X	Windows   Linux
M6g	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
M6gd	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux

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Instance type	Hyperviso r	Processor type (architec ture)	Metal instance: available	Dedicated Hosts support	Spot support	Hibernati on support	Supported operating systems
М6і	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
M6id	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
M6idn	Nitro v4	Intel (x86_64)	✓	✓	✓	x	Windows   Linux
M6in	Nitro v4	Intel (x86_64)	✓	✓	✓	x	Windows   Linux
М7а	Nitro v4	AMD (x86_64)	✓	✓	✓	x	Windows   Linux
M7g	Nitro v4	AWS Graviton (arm64)	✓	✓	1	✓	Linux
M7gd	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
M7i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
M7i-flex	Nitro v4	Intel (x86_64)	X	X	✓	✓	Windows   Linux
Mac1	Nitro v2	Intel (x86_64_m ac)	✓	✓	X	X	Linux

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Instance type	Hyperviso r	Processor type (architec ture)	Metal instance: available	Dedicated Hosts support	Spot support	Hibernati on support	Supported operating systems
Mac2	Nitro v2	Apple (arm64_ma c)	✓	✓	X	X	Linux
Mac2- m1ultra	Nitro v2	Apple (arm64_ma c)	✓	✓	X	X	Linux
Mac2- m2	Nitro v2	Apple (arm64_ma c)	✓	✓	X	X	Linux
Mac2- m2pro	Nitro v2	Apple (arm64_ma c)	✓	✓	X	X	Linux
T2	Xen	Intel (x86_64)	X	X	✓	✓	Windows   Linux
Т3	Nitro v2	Intel (x86_64)	X	✓	✓	✓	Windows   Linux
T3a	Nitro v2	AMD (x86_64)	X	X	✓	✓	Windows   Linux
T4g	Nitro v2	AWS Graviton (arm64)	X	X	✓	X	Linux

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# **Performance specifications**

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			M5					
m5.large	X	8.00	Intel Xeon Platinum 8175	2	1	2	X	X
m5.xlarge	X	16.00	Intel Xeon Platinum 8175	4	2	2	X	X
m5.2xlarge	X	32.00	Intel Xeon Platinum 8175	8	4	2	X	X
m5.4xlarge	X	64.00	Intel Xeon Platinum 8175	16	8	2	X	X
m5.8xlarge	X	128.00	Intel Xeon Platinum 8175	32	16	2	X	X
m5.12xlarge	X	192.00	Intel Xeon Platinum 8175	48	24	2	X	X
m5.16xlarge	X	256.00	Intel Xeon Platinum 8175	64	32	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m5.24xlarge	X	384.00	Intel Xeon Platinum 8175	96	48	2	X	X
m5.metal	X	384.00	Intel Xeon Platinum 8175	96	48	2	X	X
			M5a					
m5a.large	X	8.00	AMD EPYC 7571	2	1	2	X	X
m5a.xlarge	X	16.00	AMD EPYC 7571	4	2	2	X	X
m5a.2xlarge	X	32.00	AMD EPYC 7571	8	4	2	X	X
m5a.4xlarge	X	64.00	AMD EPYC 7571	16	8	2	X	X
m5a.8xlarge	X	128.00	AMD EPYC 7571	32	16	2	X	X
m5a.12xla rge	X	192.00	AMD EPYC 7571	48	24	2	X	X
m5a.16xla rge	X	256.00	AMD EPYC 7571	64	32	2	X	X
m5a.24xla rge	X	384.00	AMD EPYC 7571	96	48	2	X	X
			M5ad	I				

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m5ad.large	X	8.00	AMD EPYC 7571	2	1	2	X	X
m5ad.xlarge	X	16.00	AMD EPYC 7571	4	2	2	X	X
m5ad.2xla rge	X	32.00	AMD EPYC 7571	8	4	2	x	X
m5ad.4xla rge	X	64.00	AMD EPYC 7571	16	8	2	X	X
m5ad.8xla rge	X	128.00	AMD EPYC 7571	32	16	2	x	X
m5ad.12xl arge	X	192.00	AMD EPYC 7571	48	24	2	x	X
m5ad.16xl arge	X	256.00	AMD EPYC 7571	64	32	2	x	X
m5ad.24xl arge	X	384.00	AMD EPYC 7571	96	48	2	X	X
			M5d					
m5d.large	X	8.00	Intel Xeon Platinum 8175	2	1	2	X	X
m5d.xlarge	X	16.00	Intel Xeon Platinum 8175	4	2	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m5d.2xlarge	X	32.00	Intel Xeon Platinum 8175	8	4	2	X	X
m5d.4xlarge	X	64.00	Intel Xeon Platinum 8175	16	8	2	X	X
m5d.8xlarge	X	128.00	Intel Xeon Platinum 8175	32	16	2	X	X
m5d.12xla rge	X	192.00	Intel Xeon Platinum 8175	48	24	2	X	X
m5d.16xla rge	X	256.00	Intel Xeon Platinum 8175	64	32	2	X	X
m5d.24xla rge	X	384.00	Intel Xeon Platinum 8175	96	48	2	X	X
m5d.metal	x	384.00	Intel Xeon Platinum 8175	96	48	2	X	X
			M5dn	1				
m5dn.large	X	8.00	Intel Xeon Platinum 8259	2	1	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m5dn.xlarge	X	16.00	Intel Xeon Platinum 8259	4	2	2	X	X
m5dn.2xla rge	x	32.00	Intel Xeon Platinum 8259	8	4	2	X	X
m5dn.4xla rge	X	64.00	Intel Xeon Platinum 8259	16	8	2	X	X
m5dn.8xla rge	x	128.00	Intel Xeon Platinum 8259	32	16	2	X	X
m5dn.12xl arge	x	192.00	Intel Xeon Platinum 8259	48	24	2	X	X
m5dn.16xl arge	X	256.00	Intel Xeon Platinum 8259	64	32	2	X	X
m5dn.24xl arge	X	384.00	Intel Xeon Platinum 8259	96	48	2	X	X
m5dn.metal	x	384.00	Intel Xeon Platinum 8259	96	48	2	X	X
			M5n					

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m5n.large	X	8.00	Intel Xeon Platinum 8259	2	1	2	X	X
m5n.xlarge	X	16.00	Intel Xeon Platinum 8259	4	2	2	X	X
m5n.2xlarge	X	32.00	Intel Xeon Platinum 8259	8	4	2	X	X
m5n.4xlarge	X	64.00	Intel Xeon Platinum 8259	16	8	2	X	X
m5n.8xlarge	X	128.00	Intel Xeon Platinum 8259	32	16	2	X	X
m5n.12xla rge	X	192.00	Intel Xeon Platinum 8259	48	24	2	X	X
m5n.16xla rge	X	256.00	Intel Xeon Platinum 8259	64	32	2	X	X
m5n.24xla rge	X	384.00	Intel Xeon Platinum 8259	96	48	2	X	X
m5n.metal	X	384.00	Intel Xeon Platinum 8259	96	48	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			M5zn					
m5zn.large	X	8.00	Intel Xeon Platinum 8252	2	1	2	X	X
m5zn.xlarge	X	16.00	Intel Xeon Platinum 8252	4	2	2	X	X
m5zn.2xla rge	X	32.00	Intel Xeon Platinum 8252	8	4	2	X	X
m5zn.3xla rge	X	48.00	Intel Xeon Platinum 8252	12	6	2	X	X
m5zn.6xla rge	X	96.00	Intel Xeon Platinum 8252	24	12	2	X	X
m5zn.12xl arge	X	192.00	Intel Xeon Platinum 8252	48	24	2	X	X
m5zn.metal	X	192.00	Intel Xeon Platinum 8252	48	24	2	X	X
			M6a					
m6a.large	X	8.00	AMD EPYC 7R13	2	1	2	X	x

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m6a.xlarge	X	16.00	AMD EPYC 7R13	4	2	2	X	X
m6a.2xlarge	X	32.00	AMD EPYC 7R13	8	4	2	x	X
m6a.4xlarge	X	64.00	AMD EPYC 7R13	16	8	2	X	X
m6a.8xlarge	X	128.00	AMD EPYC 7R13	32	16	2	x	X
m6a.12xla rge	X	192.00	AMD EPYC 7R13	48	24	2	x	X
m6a.16xla rge	X	256.00	AMD EPYC 7R13	64	32	2	X	X
m6a.24xla rge	X	384.00	AMD EPYC 7R13	96	48	2	X	X
m6a.32xla rge	X	512.00	AMD EPYC 7R13	128	64	2	X	X
m6a.48xla rge	X	768.00	AMD EPYC 7R13	192	96	2	X	X
m6a.metal	X	768.00	AMD EPYC 7R13	192	96	2	X	X
			M6g					
m6g.mediu m	X	4.00	AWS Graviton2 Processor	1	1	1	X	x

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory	
m6g.large	X	8.00	AWS Graviton2 Processor	2	2	1	X	X	
m6g.xlarge	X	16.00	AWS Graviton2 Processor	4	4	1	X	X	
m6g.2xlarge	X	32.00	AWS Graviton2 Processor	8	8	1	X	X	
m6g.4xlarge	X	64.00	AWS Graviton2 Processor	16	16	1	X	X	
m6g.8xlarge	X	128.00	AWS Graviton2 Processor	32	32	1	X	X	
m6g.12xla rge	X	192.00	AWS Graviton2 Processor	48	48	1	X	X	
m6g.16xla rge	X	256.00	AWS Graviton2 Processor	64	64	1	X	X	
m6g.metal	X	256.00	AWS Graviton2 Processor	64	64	1	X	X	
M6gd									

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m6gd.medi um	X	4.00	AWS Graviton2 Processor	1	1	1	X	X
m6gd.large	X	8.00	AWS Graviton2 Processor	2	2	1	X	X
m6gd.xlarge	X	16.00	AWS Graviton2 Processor	4	4	1	X	X
m6gd.2xla rge	X	32.00	AWS Graviton2 Processor	8	8	1	X	X
m6gd.4xla rge	X	64.00	AWS Graviton2 Processor	16	16	1	X	X
m6gd.8xla rge	X	128.00	AWS Graviton2 Processor	32	32	1	X	X
m6gd.12xl arge	X	192.00	AWS Graviton2 Processor	48	48	1	X	X
m6gd.16xl arge	X	256.00	AWS Graviton2 Processor	64	64	1	X	X
m6gd.metal	X	256.00	AWS Graviton2 Processor	64	64	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			M6i					
m6i.large	X	8.00	Intel Xeon Ice Lake	2	1	2	X	X
m6i.xlarge	X	16.00	Intel Xeon Ice Lake	4	2	2	X	X
m6i.2xlarge	X	32.00	Intel Xeon Ice Lake	8	4	2	X	X
m6i.4xlarge	X	64.00	Intel Xeon Ice Lake	16	8	2	X	X
m6i.8xlarge	X	128.00	Intel Xeon Ice Lake	32	16	2	X	X
m6i.12xla rge	X	192.00	Intel Xeon Ice Lake	48	24	2	X	X
m6i.16xla rge	X	256.00	Intel Xeon Ice Lake	64	32	2	X	X
m6i.24xla rge	X	384.00	Intel Xeon Ice Lake	96	48	2	X	X
m6i.32xla rge	X	512.00	Intel Xeon Ice Lake	128	64	2	X	X
m6i.metal	X	512.00	Intel Xeon Ice Lake	128	64	2	X	X
			M6id					
m6id.large	X	8.00	Intel Xeon Ice Lake	2	1	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory	
m6id.xlarge	X	16.00	Intel Xeon Ice Lake	4	2	2	X	X	
m6id.2xla rge	X	32.00	Intel Xeon Ice Lake	8	4	2	X	X	
m6id.4xla rge	X	64.00	Intel Xeon Ice Lake	16	8	2	x	X	
m6id.8xla rge	X	128.00	Intel Xeon Ice Lake	32	16	2	X	X	
m6id.12xl arge	x	192.00	Intel Xeon Ice Lake	48	24	2	X	X	
m6id.16xl arge	X	256.00	Intel Xeon Ice Lake	64	32	2	X	X	
m6id.24xl arge	X	384.00	Intel Xeon Ice Lake	96	48	2	x	X	
m6id.32xl arge	X	512.00	Intel Xeon Ice Lake	128	64	2	x	X	
m6id.metal	X	512.00	Intel Xeon Ice Lake	128	64	2	X	X	
M6idn									
m6idn.large	X	8.00	Intel Xeon Ice Lake	2	1	2	x	X	
m6idn.xla rge	X	16.00	Intel Xeon Ice Lake	4	2	2	X	X	

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m6idn.2xl arge	X	32.00	Intel Xeon Ice Lake	8	4	2	X	X
m6idn.4xl arge	X	64.00	Intel Xeon Ice Lake	16	8	2	X	X
m6idn.8xl arge	X	128.00	Intel Xeon Ice Lake	32	16	2	X	X
m6idn.12x large	X	192.00	Intel Xeon Ice Lake	48	24	2	x	X
m6idn.16x large	X	256.00	Intel Xeon Ice Lake	64	32	2	x	X
m6idn.24x large	X	384.00	Intel Xeon Ice Lake	96	48	2	x	X
m6idn.32x large	X	512.00	Intel Xeon Ice Lake	128	64	2	x	X
m6idn.metal	X	512.00	Intel Xeon Ice Lake	128	64	2	x	X
			M6in					
m6in.large	X	8.00	Intel Xeon Ice Lake	2	1	2	x	X
m6in.xlarge	X	16.00	Intel Xeon Ice Lake	4	2	2	x	X
m6in.2xla rge	X	32.00	Intel Xeon Ice Lake	8	4	2	x	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m6in.4xla rge	X	64.00	Intel Xeon Ice Lake	16	8	2	X	X
m6in.8xla rge	X	128.00	Intel Xeon Ice Lake	32	16	2	X	X
m6in.12xl arge	X	192.00	Intel Xeon Ice Lake	48	24	2	x	X
m6in.16xl arge	X	256.00	Intel Xeon Ice Lake	64	32	2	X	X
m6in.24xl arge	X	384.00	Intel Xeon Ice Lake	96	48	2	x	X
m6in.32xl arge	X	512.00	Intel Xeon Ice Lake	128	64	2	X	X
m6in.metal	X	512.00	Intel Xeon Ice Lake	128	64	2	x	X
			M7a					
m7a.mediu m	X	4.00	AMD EPYC 9R14	1	1	1	x	X
m7a.large	X	8.00	AMD EPYC 9R14	2	2	1	X	X
m7a.xlarge	X	16.00	AMD EPYC 9R14	4	4	1	x	X
m7a.2xlarge	X	32.00	AMD EPYC 9R14	8	8	1	x	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m7a.4xlarge	X	64.00	AMD EPYC 9R14	16	16	1	X	X
m7a.8xlarge	X	128.00	AMD EPYC 9R14	32	32	1	X	X
m7a.12xla rge	X	192.00	AMD EPYC 9R14	48	48	1	X	X
m7a.16xla rge	X	256.00	AMD EPYC 9R14	64	64	1	x	X
m7a.24xla rge	X	384.00	AMD EPYC 9R14	96	96	1	x	X
m7a.32xla rge	X	512.00	AMD EPYC 9R14	128	128	1	x	X
m7a.48xla rge	X	768.00	AMD EPYC 9R14	192	192	1	X	X
m7a.metal -48xl	X	768.00	AMD EPYC 9R14	192	192	1	X	X
			M7g					
m7g.mediu m	X	4.00	AWS Graviton3 Processor	1	1	1	X	X
m7g.large	X	8.00	AWS Graviton3 Processor	2	2	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m7g.xlarge	X	16.00	AWS Graviton3 Processor	4	4	1	X	X
m7g.2xlarge	X	32.00	AWS Graviton3 Processor	8	8	1	X	X
m7g.4xlarge	X	64.00	AWS Graviton3 Processor	16	16	1	X	X
m7g.8xlarge	X	128.00	AWS Graviton3 Processor	32	32	1	X	X
m7g.12xla rge	X	192.00	AWS Graviton3 Processor	48	48	1	X	X
m7g.16xla rge	X	256.00	AWS Graviton3 Processor	64	64	1	X	X
m7g.metal	X	256.00	AWS Graviton3 Processor	64	64	1	X	X
M7gd								
m7gd.medi um	X	4.00	AWS Graviton3 Processor	1	1	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m7gd.large	X	8.00	AWS Graviton3 Processor	2	2	1	X	X
m7gd.xlarge	X	16.00	AWS Graviton3 Processor	4	4	1	X	X
m7gd.2xla rge	X	32.00	AWS Graviton3 Processor	8	8	1	X	X
m7gd.4xla rge	X	64.00	AWS Graviton3 Processor	16	16	1	X	X
m7gd.8xla rge	X	128.00	AWS Graviton3 Processor	32	32	1	X	X
m7gd.12xl arge	x	192.00	AWS Graviton3 Processor	48	48	1	X	X
m7gd.16xl arge	X	256.00	AWS Graviton3 Processor	64	64	1	X	X
m7gd.metal	x	256.00	AWS Graviton3 Processor	64	64	1	X	X
			М7і					

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m7i.large	X	8.00	Intel Xeon Sapphire Rapids	2	1	2	X	X
m7i.xlarge	X	16.00	Intel Xeon Sapphire Rapids	4	2	2	X	X
m7i.2xlarge	X	32.00	Intel Xeon Sapphire Rapids	8	4	2	X	X
m7i.4xlarge	X	64.00	Intel Xeon Sapphire Rapids	16	8	2	X	X
m7i.8xlarge	X	128.00	Intel Xeon Sapphire Rapids	32	16	2	X	X
m7i.12xla rge	X	192.00	Intel Xeon Sapphire Rapids	48	24	2	X	X
m7i.16xla rge	X	256.00	Intel Xeon Sapphire Rapids	64	32	2	X	X
m7i.24xla rge	X	384.00	Intel Xeon Sapphire Rapids	96	48	2	X	X
m7i.48xla rge	X	768.00	Intel Xeon Sapphire Rapids	192	96	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m7i.metal -24xl	X	384.00	Intel Xeon Sapphire Rapids	96	48	2	X	X
m7i.metal -48xl	X	768.00	Intel Xeon Sapphire Rapids	192	96	2	X	X
			M7i-fle	ex				
m7i-flex. large	X	8.00	Intel Xeon Sapphire Rapids	2	1	2	X	X
m7i-flex. xlarge	X	16.00	Intel Xeon Sapphire Rapids	4	2	2	X	X
m7i-flex. 2xlarge	X	32.00	Intel Xeon Sapphire Rapids	8	4	2	X	X
m7i-flex. 4xlarge	X	64.00	Intel Xeon Sapphire Rapids	16	8	2	X	X
m7i-flex. 8xlarge	X	128.00	Intel Xeon Sapphire Rapids	32	16	2	X	X
			Mac1					
mac1.metal	X	32.00	Intel Core i7-8700B	12	6	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelera or memory		
			Mac2	2						
mac2.metal	X	16.00	Apple M1 chip with 8- core CPU	8	4	2	X	X		
Mac2-m1ultra										
mac2-m1ul tra.metal	X	128.00	Apple M1 Ultra with 20-core CPU	20	20	1	X	x		
Mac2-m2										
mac2-m2.m etal	X	24.00	Apple M2 with 8-core CPU	8	8	1	X	X		
			Mac2-m2	2pro						
mac2-m2pr o.metal	X	32.00	Apple M2 Pro with 12-core CPU	12	12	1	X	X		
			T2							
t2.nano	✓	0.50	Intel Xeon Family	1	1	1	X	X		
t2.micro	✓	1.00	Intel Xeon Family	1	1	1	X	X		
t2.small	✓	2.00	Intel Xeon Family	1	1	1	x	X		

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
t2.medium	✓	4.00	Intel Broadwell E5-2686v4	2	2	1	X	X
t2.large	✓	8.00	Intel Broadwell E5-2686v4	2	2	1	X	X
t2.xlarge	✓	16.00	Intel Broadwell E5-2686v4	4	4	1	X	X
t2.2xlarge	✓	32.00	Intel Broadwell E5-2686v4	8	8	1	X	X
			Т3					
t3.nano	✓	0.50	Intel Skylake P-8175	2	1	2	x	X
t3.micro	✓	1.00	Intel Skylake P-8175	2	1	2	X	X
t3.small	✓	2.00	Intel Skylake P-8175	2	1	2	X	X
t3.medium	✓	4.00	Intel Skylake P-8175	2	1	2	X	X
t3.large	✓	8.00	Intel Skylake P-8175	2	1	2	X	X
t3.xlarge	✓	16.00	Intel Skylake P-8175	4	2	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory		
t3.2xlarge	✓	32.00	Intel Skylake P-8175	8	4	2	X	X		
	T3a									
t3a.nano	✓	0.50	AMD EPYC 7571	2	1	2	x	X		
t3a.micro	✓	1.00	AMD EPYC 7571	2	1	2	x	X		
t3a.small	✓	2.00	AMD EPYC 7571	2	1	2	X	X		
t3a.medium	✓	4.00	AMD EPYC 7571	2	1	2	X	X		
t3a.large	✓	8.00	AMD EPYC 7571	2	1	2	X	X		
t3a.xlarge	✓	16.00	AMD EPYC 7571	4	2	2	X	X		
t3a.2xlarge	✓	32.00	AMD EPYC 7571	8	4	2	X	X		
			T4g							
t4g.nano	✓	0.50	AWS Graviton2 Processor	2	2	1	X	X		
t4g.micro	✓	1.00	AWS Graviton2 Processor	2	2	1	X	X		

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
t4g.small	<b>√</b>	2.00	AWS Graviton2 Processor	2	2	1	X	X
t4g.medium	<b>√</b>	4.00	AWS Graviton2 Processor	2	2	1	X	X
t4g.large	<b>√</b>	8.00	AWS Graviton2 Processor	2	2	1	X	X
t4g.xlarge	✓	16.00	AWS Graviton2 Processor	4	4	1	X	X
t4g.2xlarge	✓	32.00	AWS Graviton2 Processor	8	8	1	X	X

## **Network specifications**

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
			N	45				
m5.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
m5.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6		
m5.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓		
m5.4xlarge <sup>1</sup>	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	✓		
			M	15a						
m5a.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓		
m5a.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓		
m5a.2xlarge <sup>1</sup>	2.5 / 10.0	x	✓	X	1	4	15	✓		
m5a.4xlarge <sup>1</sup>	5.0 / 10.0	X	✓	X	1	8	30	✓		
m5a.8xlarge <sup>1</sup>	7.5 / 10.0	x	✓	X	1	8	30	✓		
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 <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓		
m5ad.xlarge <sup>1</sup>	1.25 / 10.0	x	✓	X	1	4	15	✓		

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
m5ad.2xlarge	2.5 / 10.0	X	✓	X	1	4	15	✓
m5ad.4xlarge	5.0 / 10.0	X	✓	X	1	8	30	✓
m5ad.8xlarge	7.5 / 10.0	X	✓	X	1	8	30	✓
m5ad.12xl arge	10 Gigabit	X	✓	X	1	8	30	✓
m5ad.16xl arge	12 Gigabit	X	✓	X	1	15	50	✓
m5ad.24xl arge	20 Gigabit	X	✓	X	1	15	50	✓
			M	15d				
m5d.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
m5d.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
m5d.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
m5d.4xlarge <sup>1</sup>	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
m5d.metal	25 Gigabit	X	✓	x	1	15	50	✓
			M	5dn				
m5dn.large <sup>1</sup>	2.1 / 25.0	X	✓	X	1	3	10	✓
m5dn.xlarge <sup>1</sup>	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.12xl arge	50 Gigabit	X	✓	X	1	8	30	✓
m5dn.16xl arge	75 Gigabit	X	✓	X	1	15	50	✓
m5dn.24xl arge	100 Gigabit	✓	✓	X	1	15	50	✓
m5dn.metal	100 Gigabit	✓	✓	X	1	15	50	✓
			M	15n				
m5n.large <sup>1</sup>	2.1 / 25.0	X	✓	X	1	3	10	✓
m5n.xlarge <sup>1</sup>	4.1 / 25.0	X	✓	x	1	4	15	✓
m5n.2xlarge <sup>1</sup>	8.125 / 25.0	X	✓	x	1	4	15	✓
m5n.4xlarge <sup>1</sup>	16.25 / 25.0	X	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
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	✓
			М	5zn				
m5zn.large <sup>1</sup>	3.0 / 25.0	x	✓	X	1	3	10	✓
m5zn.xlarge <sup>1</sup>	5.0 / 25.0	X	✓	x	1	4	15	✓
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.12xl arge	100 Gigabit	✓	✓	X	1	15	50	✓
m5zn.metal	100 Gigabit	✓	✓	X	1	15	50	✓
			M	16a				
m6a.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
m6a.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	x	1	4	15	✓
m6a.2xlarge <sup>1</sup>	3.125 / 12.5	x	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
m6a.4xlarge <sup>1</sup>	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	✓	✓	1	8	30	✓
m6a.16xlarge	25 Gigabit	X	✓	✓	1	15	50	✓
m6a.24xlarge	37.5 Gigabit	X	✓	✓	1	15	50	✓
m6a.32xlarge	50 Gigabit	X	✓	✓	1	15	50	✓
m6a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m6a.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
			M	16g				
m6g.medium 1	0.5 / 10.0	X	✓	X	1	2	4	✓
m6g.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
m6g.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
m6g.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
m6g.4xlarge <sup>1</sup>	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
			M	6gd				
m6gd.medi um <sup>1</sup>	0.5 / 10.0	X	✓	X	1	2	4	✓
m6gd.large <sup>1</sup>	0.75 / 10.0	X	✓	x	1	3	10	✓
m6gd.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	x	1	4	15	✓
m6gd.2xlarge	2.5 / 10.0	X	✓	X	1	4	15	✓
m6gd.4xlarge 1	5.0 / 10.0	X	✓	X	1	8	30	✓
m6gd.8xlarge	12 Gigabit	X	✓	X	1	8	30	✓
m6gd.12xl arge	20 Gigabit	X	✓	X	1	8	30	✓
m6gd.16xl arge	25 Gigabit	X	✓	X	1	15	50	✓
m6gd.metal	25 Gigabit	X	✓	X	1	15	50	✓
			N	16i				
m6i.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
m6i.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
m6i.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
m6i.4xlarge <sup>1</sup>	6.25 / 12.5	X	✓	X	1	8	30	✓
m6i.8xlarge	12.5 Gigabit	X	✓	✓	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
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	✓
			М	6id				
m6id.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
m6id.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
m6id.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
m6id.4xlarge <sup>1</sup>	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	✓
			M	6idn				
m6idn.large <sup>1</sup>	3.125 / 25.0	X	✓	X	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
m6idn.xlarge 1	6.25 / 30.0	X	✓	X	1	4	15	✓
m6idn.2xlarge	12.5 / 40.0	X	✓	X	1	4	15	✓
m6idn.4xlarge	25.0 / 50.0	X	✓	X	1	8	30	✓
m6idn.8xlarge	50 Gigabit	X	✓	X	1	8	30	✓
m6idn.12x large	75 Gigabit	X	✓	X	1	8	30	✓
m6idn.16x large	100 Gigabit	X	✓	X	1	15	50	✓
m6idn.24x large	150 Gigabit	X	✓	X	1	15	50	✓
m6idn.32x large	200 Gigabit	✓	✓	X	2	16	50	✓
m6idn.metal	200 Gigabit	✓	✓	X	2	16	50	✓
			М	6in				
m6in.large <sup>1</sup>	3.125 / 25.0	X	✓	X	1	3	10	✓
m6in.xlarge <sup>1</sup>	6.25 / 30.0	X	✓	x	1	4	15	✓
m6in.2xlarge <sup>1</sup>	12.5 / 40.0	X	✓	x	1	4	15	✓
m6in.4xlarge <sup>1</sup>	25.0 / 50.0	X	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
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	✓
m6in.32xlarge	200 Gigabit	✓	✓	X	2	16	50	✓
m6in.metal	200 Gigabit	✓	✓	X	2	16	50	✓
			M	17a				
m7a.medium 1	0.39 / 12.5	x	✓	X	1	2	4	✓
m7a.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
m7a.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
m7a.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
m7a.4xlarge <sup>1</sup>	6.25 / 12.5	X	✓	X	1	8	30	✓
m7a.8xlarge	12.5 Gigabit	X	✓	X	1	8	30	✓
m7a.12xlarge	18.75 Gigabit	X	✓	X	1	8	30	✓
m7a.16xlarge	25 Gigabit	X	✓	X	1	15	50	✓
m7a.24xlarge	37.5 Gigabit	X	✓	X	1	15	50	✓
m7a.32xlarge	50 Gigabit	X	✓	X	1	15	50	✓
m7a.48xlarge	50 Gigabit	✓	✓	X	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
m7a.metal -48xl	50 Gigabit	✓	✓	X	1	15	50	✓
			M	17g				
m7g.medium 1	0.52 / 12.5	X	✓	X	1	2	4	✓
m7g.large <sup>1</sup>	0.937 / 12.5	X	✓	X	1	3	10	✓
m7g.xlarge <sup>1</sup>	1.876 / 12.5	X	✓	X	1	4	15	✓
m7g.2xlarge <sup>1</sup>	3.75 / 15.0	X	✓	X	1	4	15	✓
m7g.4xlarge <sup>1</sup>	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	✓
			M	7gd				
m7gd.medi um <sup>1</sup>	0.52 / 12.5	X	✓	X	1	2	4	✓
m7gd.large <sup>1</sup>	0.937 / 12.5	X	✓	X	1	3	10	✓
m7gd.xlarge <sup>1</sup>	1.876 / 12.5	X	✓	X	1	4	15	✓
m7gd.2xlarge	3.75 / 15.0	X	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
m7gd.4xlarge	7.5 / 15.0	X	✓	X	1	8	30	✓
m7gd.8xlarge	15 Gigabit	X	✓	X	1	8	30	✓
m7gd.12xl arge	22.5 Gigabit	X	✓	✓	1	8	30	✓
m7gd.16xl arge	30 Gigabit	✓	✓	✓	1	15	50	✓
m7gd.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
			N	17i				
m7i.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
m7i.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
m7i.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
m7i.4xlarge <sup>1</sup>	6.25 / 12.5	X	✓	X	1	8	30	✓
m7i.8xlarge	12.5 Gigabit	X	✓	X	1	8	30	✓
m7i.12xlarge	18.75 Gigabit	X	✓	✓	1	8	30	✓
m7i.16xlarge	25 Gigabit	X	✓	✓	1	15	50	✓
m7i.24xlarge	37.5 Gigabit	X	✓	✓	1	15	50	✓
m7i.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
m7i.metal -24xl	37.5 Gigabit	X	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
m7i.metal -48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
			М7	i-flex				
m7i-flex.large 1	0.39 / 12.5	X	✓	X	1	3	10	✓
m7i-flex. xlarge <sup>1</sup>	0.781 / 12.5	X	✓	X	1	4	15	✓
m7i-flex. 2xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
m7i-flex. 4xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	8	30	✓
m7i-flex. 8xlarge <sup>1</sup>	6.25 / 12.5	X	✓	X	1	8	30	✓
			М	ac1				
mac1.metal	25 Gigabit	X	✓	X	1	8	30	✓
			М	ac2				
mac2.metal	10 Gigabit	X	✓	X	1	8	30	✓
			Mac2-	m1ultra				
mac2-m1ul tra.metal	10 Gigabit	X	✓	X	1	8	30	✓
			Mac	:2-m2				

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
mac2-m2.m etal	10 Gigabit	X	✓	X	1	8	30	✓
			Mac2	-m2pro				
mac2-m2pr o.metal	10 Gigabit	X	✓	X	1	8	30	✓
			•	Т2				
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	✓
				Т3				
t3.nano <sup>1</sup>	0.032 / 5.0	X	✓	X	1	2	2	✓
t3.micro <sup>1</sup>	0.064 / 5.0	X	✓	X	1	2	2	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
t3.small <sup>1</sup>	0.128 / 5.0	X	✓	X	1	3	4	✓
t3.medium <sup>1</sup>	0.256 / 5.0	X	✓	X	1	3	6	✓
t3.large <sup>1</sup>	0.512 / 5.0	X	✓	X	1	3	12	✓
t3.xlarge <sup>1</sup>	1.024 / 5.0	X	✓	X	1	4	15	✓
t3.2xlarge <sup>1</sup>	2.048 / 5.0	X	✓	x	1	4	15	✓
			Т	3a				
t3a.nano <sup>1</sup>	0.032 / 5.0	X	✓	x	1	2	2	✓
t3a.micro <sup>1</sup>	0.064 / 5.0	X	✓	X	1	2	2	✓
t3a.small <sup>1</sup>	0.128 / 5.0	X	✓	x	1	2	4	✓
t3a.medium <sup>1</sup>	0.256 / 5.0	X	✓	X	1	3	6	✓
t3a.large <sup>1</sup>	0.512 / 5.0	X	✓	X	1	3	12	✓
t3a.xlarge <sup>1</sup>	1.024 / 5.0	X	✓	X	1	4	15	✓
t3a.2xlarge <sup>1</sup>	2.048 / 5.0	X	✓	x	1	4	15	✓
			Т	4g				
t4g.nano <sup>1</sup>	0.032 / 5.0	X	✓	x	1	2	2	✓
t4g.micro <sup>1</sup>	0.064 / 5.0	X	✓	X	1	2	2	✓
t4g.small <sup>1</sup>	0.128 / 5.0	X	✓	x	1	3	4	✓
t4g.medium <sup>1</sup>	0.256 / 5.0	X	✓	X	1	3	6	✓
t4g.large <sup>1</sup>	0.512 / 5.0	X	✓	x	1	3	12	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
t4g.xlarge <sup>1</sup>	1.024 / 5.0	X	✓	X	1	4	15	✓
t4g.2xlarge <sup>1</sup>	2.048 / 5.0	X	✓	X	1	4	15	✓

## Note

<sup>1</sup> 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 <u>instance</u> 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**

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

## Important

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

gp3 volumes provisioned with 16,000 IOPS each (5 volumes x 16,000 IOPS = 80,000 IOPS).

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization 2
		M	15		
m5.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
m5.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
m5.2xlarge <sup>1</sup>	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
		М	5a		

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.large <sup>1</sup>	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	default
m5a.xlarge <sup>1</sup>	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	default
m5a.2xlarge	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
m5a.16xlarge	9500.00	1187.50	40000.00	✓	default
m5a.24xlarge	13750.00	1718.75	60000.00	✓	default
		M5	ad		
m5ad.large <sup>1</sup>	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

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
m5ad.12xl arge	6780.00	847.50	30000.00	✓	default
m5ad.16xl arge	9500.00	1187.50	40000.00	✓	default
m5ad.24xl arge	13750.00	1718.75	60000.00	✓	default
		M!	5d		
m5d.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
m5d.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
m5d.2xlarge	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.12xla rge	9500.00	1187.50	40000.00	✓	default
m5d.16xla rge	13600.00	1700.00	60000.00	✓	default
m5d.24xla rge	19000.00	2375.00	80000.00	✓	default
m5d.metal	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
		M5	idn		
m5dn.large <sup>1</sup>	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.2xla rge <sup>1</sup>	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	default
m5dn.4xla rge	4750.00	593.75	18750.00	✓	default
m5dn.8xla rge	6800.00	850.00	30000.00	✓	default
m5dn.12xl arge	9500.00	1187.50	40000.00	✓	default
m5dn.16xl arge	13600.00	1700.00	60000.00	✓	default
m5dn.24xl arge	19000.00	2375.00	80000.00	✓	default
m5dn.metal	19000.00	2375.00	80000.00	✓	default
		М	5n		
m5n.large <sup>1</sup>	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
m5n.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
m5n.2xlarge	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.12xla rge	9500.00	1187.50	40000.00	✓	default
m5n.16xla rge	13600.00	1700.00	60000.00	✓	default
m5n.24xla rge	19000.00	2375.00	80000.00	✓	default
m5n.metal	19000.00	2375.00	80000.00	✓	default
		M5	izn		
m5zn.large <sup>1</sup>	800.00 / 3170.00	100.00 / 396.25	3333.00 / 13333.00	<b>√</b>	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

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
m5zn.12xl arge	19000.00	2375.00	80000.00	✓	default
m5zn.metal	19000.00	2375.00	80000.00	✓	default
		M	6a		
m6a.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m6a.xlarge <sup>1</sup>	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
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
		M	6g		

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.medium	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
m6g.large <sup>1</sup>	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
m6g.xlarge <sup>1</sup>	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
m6g.2xlarge	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
m6g.12xla rge	14250.00	1781.25	50000.00	✓	default
m6g.16xla rge	19000.00	2375.00	80000.00	✓	default
m6g.metal	19000.00	2375.00	80000.00	✓	default
		M6	igd		
m6gd.medi um <sup>1</sup>	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
m6gd.large <sup>1</sup>	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
m6gd.xlarge	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
m6gd.2xla rge <sup>1</sup>	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 20000.00	✓	default
m6gd.4xla rge	4750.00	593.75	20000.00	✓	default
m6gd.8xla rge	9500.00	1187.50	40000.00	✓	default
m6gd.12xl arge	14250.00	1781.25	50000.00	✓	default
m6gd.16xl arge	19000.00	2375.00	80000.00	✓	default
m6gd.metal	19000.00	2375.00	80000.00	✓	default
		М	6i		
m6i.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m6i.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m6i.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m6i.4xlarge <sup>1</sup>	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

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
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
		Me	Sid		
m6id.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m6id.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m6id.2xlarge	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m6id.4xlarge	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
m6id.8xlarge	10000.00	1250.00	40000.00	✓	default
m6id.12xl arge	15000.00	1875.00	60000.00	✓	default
m6id.16xl arge	20000.00	2500.00	80000.00	✓	default
m6id.24xl arge	30000.00	3750.00	120000.00	✓	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.32xl arge	40000.00	5000.00	160000.00	✓	default
m6id.metal	40000.00	5000.00	160000.00	✓	default
		M6	idn		
m6idn.large <sup>1</sup>	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
m6idn.2xl arge <sup>1</sup>	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	default
m6idn.4xl arge <sup>1</sup>	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	default
m6idn.8xl arge	25000.00	3125.00	100000.00	✓	default
m6idn.12x large	37500.00	4687.50	150000.00	✓	default
m6idn.16x large	50000.00	6250.00	200000.00	✓	default
m6idn.24x large	75000.00	9375.00	300000.00	✓	default
m6idn.32x large	100000.00	12500.00	400000.00	✓	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.metal	100000.00	12500.00	400000.00	✓	default
		Me	Sin		
m6in.large <sup>1</sup>	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	default
m6in.xlarge <sup>1</sup>	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	default
m6in.2xlarge	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	default
m6in.4xlarge	12500.00 / 25000.00	1562.50 / 3125.00	50000.00 / 100000.00	✓	default
m6in.8xlarge	25000.00	3125.00	100000.00	✓	default
m6in.12xl arge	37500.00	4687.50	150000.00	✓	default
m6in.16xl arge	50000.00	6250.00	200000.00	✓	default
m6in.24xl arge	75000.00	9375.00	300000.00	✓	default
m6in.32xl arge	100000.00	12500.00	400000.00	✓	default
m6in.metal	100000.00	12500.00	400000.00	✓	default
		M	7a		

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.medium	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 40000.00	✓	default
m7a.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m7a.xlarge <sup>1</sup>	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
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
		М	7g		
m7g.medium 1	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 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.large <sup>1</sup>	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
m7g.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m7g.2xlarge	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
m7g.8xlarge	10000.00	1250.00	40000.00	✓	default
m7g.12xla rge	15000.00	1875.00	60000.00	✓	default
m7g.16xla rge	20000.00	2500.00	80000.00	✓	default
m7g.metal	20000.00	2500.00	80000.00	✓	default
		М7	'gd		
m7gd.medi um <sup>1</sup>	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
m7gd.large <sup>1</sup>	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

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.2xla rge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m7gd.4xla rge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
m7gd.8xla rge	10000.00	1250.00	40000.00	✓	default
m7gd.12xl arge	15000.00	1875.00	60000.00	✓	default
m7gd.16xl arge	20000.00	2500.00	80000.00	✓	default
m7gd.metal	20000.00	2500.00	80000.00	✓	default
		М	7i		
m7i.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
m7i.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m7i.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
m7i.4xlarge <sup>1</sup>	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

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.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
M7i-flex					
m7i-flex. large <sup>1</sup>	312.00 / 10000.00	39.06 / 1250.00	2500.00 / 40000.00	✓	default
m7i-flex. xlarge <sup>1</sup>	625.00 / 10000.00	78.12 / 1250.00	3600.00 / 40000.00	✓	default
m7i-flex. 2xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
m7i-flex. 4xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	<b>√</b>	default
m7i-flex. 8xlarge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
Mac1					
mac1.metal	14000.00	1750.00	80000.00	✓	default
Mac2					

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
mac2.metal	10000.00	1250.00	55000.00	✓	default
		Mac2-n	n1ultra		
mac2-m1ul tra.metal	10000.00	1250.00	55000.00	✓	default
		Mac2	2-m2		
mac2-m2.m etal	8000.00	1000.00	55000.00	✓	default
		Mac2-	m2pro		
mac2-m2pr o.metal	8000.00	1000.00	55000.00	✓	default
		Т	2		
		т	3		
t3.nano <sup>1</sup>	43.00 / 2085.00	5.38 / 260.62	250.00 / 11800.00	✓	default
t3.micro <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11800.00	✓	default
t3.small <sup>1</sup>	174.00 / 2085.00	21.75 / 260.62	1000.00 / 11800.00	✓	default
t3.medium <sup>1</sup>	347.00 / 2085.00	43.38 / 260.62	2000.00 / 11800.00	✓	default

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Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization 2
t3.large <sup>1</sup>	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t3.xlarge <sup>1</sup>	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t3.2xlarge <sup>1</sup>	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
		T	3a		
t3a.nano <sup>1</sup>	45.00 / 2085.00	5.62 / 260.62	250.00 / 11800.00	✓	default
t3a.micro <sup>1</sup>	90.00 / 2085.00	11.25 / 260.62	500.00 / 11800.00	✓	default
t3a.small <sup>1</sup>	175.00 / 2085.00	21.88 / 260.62	1000.00 / 11800.00	✓	default
t3a.medium <sup>1</sup>	350.00 / 2085.00	43.75 / 260.62	2000.00 / 11800.00	✓	default
t3a.large <sup>1</sup>	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t3a.xlarge <sup>1</sup>	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
t3a.2xlarge <sup>1</sup>	695.00 / 2780.00	86.88 / 347.50	4000.00 / 15700.00	✓	default
		T	1g		

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

### Note

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<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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**

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

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
		M5	5ad		
m5ad.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓
m5ad.xlarge	1 x 150 GB	NVMe SSD	59,000 / 29,000		✓
m5ad.2xlarge	1 x 300 GB	NVMe SSD	117,000 / 57,000		✓
m5ad.4xlarge	2 x 300 GB	NVMe SSD	234,000 / 114,000		✓
m5ad.8xlarge	2 x 600 GB	NVMe SSD	466,666 / 233,334		✓
m5ad.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
m5ad.16xlarge	4 x 600 GB	NVMe SSD	933,332 / 466,668		✓
m5ad.24xlarge	4 x 900 GB	NVMe SSD	1,400,000 / 680,000		✓
		М	5d		
m5d.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
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		✓
		M5	idn		
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		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
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		✓
		Мб	igd		
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		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		Me	5id		
m6id.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
m6id.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		<b>√</b>
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		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		М6	idn		
m6idn.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
m6idn.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
m6idn.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
m6idn.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
m6idn.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
m6idn.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
m6idn.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
m6idn.24xlarge	4 x 1425 GB	NVMe SSD	1,609,996 / 805,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		M7	⁄gd		
m7gd.medium	1 x 59 GB	NVMe SSD	16,771 / 8,385		✓
m7gd.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
m7gd.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
m7gd.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
m7gd.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
m7gd.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
m7gd.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
m7gd.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
m7gd.metal	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓

## **Security specifications**

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			M5			
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	✓	✓

<sup>&</sup>lt;sup>1</sup> Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see Optimize disk performance for instance store volumes.

<sup>&</sup>lt;sup>2</sup> For more information, see <u>Instance store volume TRIM support</u>.

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5.16xlarge	✓	Instance store not supported	X	x	✓	✓
m5.24xlarge	✓	Instance store not supported	X	x	✓	✓
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	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5a.12xlarge	✓	Instance store not supported	x	X	✓	✓
m5a.16xlarge	✓	Instance store not supported	x	x	✓	✓
m5a.24xlarge	✓	Instance store not supported	X	X	✓	✓
		N	15ad			
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	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
m5d.2xlarge	✓	✓	x	X	✓	✓		
m5d.4xlarge	✓	✓	X	X	✓	✓		
m5d.8xlarge	✓	✓	x	x	✓	✓		
m5d.12xlarge	✓	✓	X	x	✓	✓		
m5d.16xlarge	✓	✓	x	X	✓	✓		
m5d.24xlarge	✓	✓	x	x	✓	✓		
m5d.metal	✓	✓	x	X	x	x		
M5dn								
m5dn.large	✓	✓	✓	X	✓	x		
m5dn.xlarge	✓	✓	✓	X	✓	✓		
m5dn.2xlarge	✓	✓	✓	x	✓	✓		
m5dn.4xlarge	✓	✓	✓	X	✓	✓		
m5dn.8xlarge	✓	✓	✓	X	✓	✓		
m5dn.12xlarge	✓	✓	✓	X	✓	✓		
m5dn.16xlarge	✓	✓	✓	X	✓	✓		
m5dn.24xlarge	✓	✓	✓	X	✓	✓		
m5dn.metal	✓	✓	✓	X	X	X		
			M5n					

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m5n.large	✓	Instance store not supported	✓	x	✓	X
m5n.xlarge	✓	Instance store not supported	✓	X	✓	✓
m5n.2xlarge	✓	Instance store not supported	✓	x	✓	✓
m5n.4xlarge	✓	Instance store not supported	✓	X	✓	✓
m5n.8xlarge	✓	Instance store not supported	✓	X	✓	✓
m5n.12xlarge	✓	Instance store not supported	✓	X	✓	✓
m5n.16xlarge	✓	Instance store not supported	✓	X	✓	✓
m5n.24xlarge	✓	Instance store not supported	✓	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves			
m5n.metal	✓	Instance store not supported	✓	X	X	X			
M5zn									
m5zn.large	✓	Instance store not supported	✓	x	✓	X			
m5zn.xlarge	✓	Instance store not supported	✓	X	✓	✓			
m5zn.2xlarge	✓	Instance store not supported	✓	x	✓	✓			
m5zn.3xlarge	✓	Instance store not supported	✓	X	✓	✓			
m5zn.6xlarge	✓	Instance store not supported	✓	X	✓	✓			
m5zn.12xlarge	✓	Instance store not supported	✓	x	✓	✓			
m5zn.metal	✓	Instance store not supported	✓	X	X	X			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			M6a			
m6a.large	✓	Instance store not supported	✓	✓	✓	X
m6a.xlarge	✓	Instance store not supported	✓	✓	✓	✓
m6a.2xlarge	✓	Instance store not supported	✓	✓	✓	✓
m6a.4xlarge	✓	Instance store not supported	✓	✓	✓	✓
m6a.8xlarge	✓	Instance store not supported	✓	✓	✓	✓
m6a.12xlarge	✓	Instance store not supported	✓	X	✓	✓
m6a.16xlarge	✓	Instance store not supported	✓	x	✓	✓
m6a.24xlarge	✓	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
m6a.32xlarge	✓	Instance store not supported	✓	x	✓	✓		
m6a.48xlarge	✓	Instance store not supported	✓	x	✓	✓		
m6a.metal	✓	Instance store not supported	✓	X	X	X		
M6g								
m6g.medium	✓	Instance store not supported	X	x	✓	X		
m6g.large	✓	Instance store not supported	X	X	✓	✓		
m6g.xlarge	✓	Instance store not supported	X	x	✓	✓		
m6g.2xlarge	✓	Instance store not supported	X	x	✓	✓		
m6g.4xlarge	✓	Instance store not supported	x	x	✓	✓		

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6g.8xlarge	✓	Instance store not supported	X	X	✓	✓
m6g.12xlarge	✓	Instance store not supported	x	x	✓	✓
m6g.16xlarge	✓	Instance store not supported	X	x	✓	✓
m6g.metal	✓	Instance store not supported	X	X	x	X
		N	16gd			
m6gd.medium	✓	✓	x	x	✓	x
m6gd.large	✓	✓	x	x	✓	✓
m6gd.xlarge	✓	✓	x	X	✓	✓
m6gd.2xlarge	✓	✓	X	X	✓	✓
m6gd.4xlarge	✓	✓	x	X	✓	✓
m6gd.8xlarge	✓	✓	X	X	✓	✓
m6gd.12xlarge	✓	✓	X	X	✓	✓
m6gd.16xlarge	✓	✓	X	X	✓	✓
m6gd.metal	✓	✓	x	x	x	x

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			М6і			
m6i.large	<b>√</b>	Instance store not supported	✓	x	✓	X
m6i.xlarge	<b>√</b>	Instance store not supported	✓	X	✓	✓
m6i.2xlarge	✓	Instance store not supported	✓	x	✓	✓
m6i.4xlarge	✓	Instance store not supported	✓	x	✓	✓
m6i.8xlarge	✓	Instance store not supported	✓	x	✓	✓
m6i.12xlarge	<b>√</b>	Instance store not supported	✓	x	✓	✓
m6i.16xlarge	<b>√</b>	Instance store not supported	✓	x	✓	✓
m6i.24xlarge	<b>√</b>	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
m6i.32xlarge	✓	Instance store not supported	✓	x	✓	✓		
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	✓	✓		

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6idn.2xlarge	✓	✓	✓	X	✓	✓
m6idn.4xlarge	✓	✓	✓	X	✓	✓
m6idn.8xlarge	✓	✓	✓	x	✓	✓
m6idn.12xlarge	✓	✓	✓	x	✓	✓
m6idn.16xlarge	✓	✓	✓	x	✓	✓
m6idn.24xlarge	✓	✓	✓	x	✓	✓
m6idn.32xlarge	✓	✓	✓	x	✓	✓
m6idn.metal	✓	✓	✓	x	X	x
		ı	M6in			
m6in.large	✓	Instance store not supported	✓	x	✓	X
m6in.xlarge	✓	Instance store not supported	✓	x	✓	✓
m6in.2xlarge	<b>√</b>	Instance store not supported	✓	x	✓	✓
m6in.4xlarge	<b>√</b>	Instance store not supported	✓	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m6in.8xlarge	✓	Instance store not supported	✓	X	✓	✓
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	<b>√</b>	x	✓	X
m7a.large	✓	Instance store not supported	✓	x	✓	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7a.xlarge	✓	Instance store not supported	✓	X	✓	X
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

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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7g.12xlarge	✓	Instance store not supported	✓	x	✓	X
m7g.16xlarge	✓	Instance store not supported	✓	x	✓	X
m7g.metal	✓	Instance store not supported	✓	X	X	X
		N	17gd			
m7gd.medium	✓	✓	✓	x	✓	X
m7gd.large	✓	✓	✓	x	✓	X
m7gd.xlarge	✓	✓	✓	x	✓	X
m7gd.2xlarge	✓	✓	✓	x	✓	X
m7gd.4xlarge	✓	✓	✓	x	✓	X
m7gd.8xlarge	✓	✓	✓	x	✓	X
m7gd.12xlarge	✓	✓	✓	X	✓	x
m7gd.16xlarge	✓	✓	✓	X	✓	x
m7gd.metal	✓	✓	✓	X	X	x
			M7i			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7i.large	✓	Instance store not supported	✓	x	✓	X
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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m7i.48xlarge	<b>√</b>	Instance store not supported	✓	X	✓	X
m7i.metal-24xl	✓	Instance store not supported	✓	x	x	X
m7i.metal-48xl	✓	Instance store not supported	✓	X	X	X
		M	7i-flex			
m7i-flex.large	<b>√</b>	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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
		r	Mac1			
mac1.metal	<b>√</b>	Instance store not supported	X	x	X	X
		ı	Mac2			
mac2.metal	<b>√</b>	Instance store not supported	X	x	X	X
		Mac2	-m1ultra			
mac2-m1ul tra.metal	✓	Instance store not supported	X	x	X	X
		Ma	ıc2-m2			
mac2-m2.metal	✓	Instance store not supported	x	X	X	x
		Mac	2-m2pro			
mac2-m2pr o.metal	✓	Instance store not supported	X	X	X	X
			T2			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
t2.nano	<b>√</b>	Instance store not supported	X	X	X	X
t2.micro	<b>√</b>	Instance store not supported	x	x	x	X
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	<b>√</b>	Instance store not supported	X	x	X	X
			Т3			
t3.nano	✓	Instance store not supported	x	x	✓	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
t3.micro	✓	Instance store not supported	X	X	✓	X
t3.small	✓	Instance store not supported	X	X	✓	X
t3.medium	✓	Instance store not supported	x	X	✓	X
t3.large	<b>√</b>	Instance store not supported	x	X	✓	X
t3.xlarge	<b>√</b>	Instance store not supported	x	X	✓	X
t3.2xlarge	<b>√</b>	Instance store not supported	x	X	✓	X
			T3a			
t3a.nano	✓	Instance store not supported	X	X	✓	X
t3a.micro	<b>√</b>	Instance store not supported	x	X	✓	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
t3a.small	<b>√</b>	Instance store not supported	X	X	✓	X
t3a.medium	<b>√</b>	Instance store not supported	X	x	✓	X
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	<b>√</b>	Instance store not supported	x	x	✓	X
t4g.micro	<b>√</b>	Instance store not supported	X	x	✓	X
t4g.small	✓	Instance store not supported	X	X	✓	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
t4g.medium	✓	Instance store not supported	X	X	✓	X
t4g.large	✓	Instance store not supported	X	X	✓	X
t4g.xlarge	✓	Instance store not supported	X	X	✓	X
t4g.2xlarge	✓	Instance store not supported	X	X	✓	X

### **Specifications for Amazon EC2 compute optimized instances**

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

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

#### **Contents**

- Available sizes
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- Amazon EBS specifications
- Instance store specifications
- Security specifications

### Pricing

For pricing information, see Amazon EC2 On-Demand Pricing.

### **Available sizes**

Instance type	Available sizes
C5	<pre>c5.large c5.xlarge c5.2xlarge c5.4xlarge c5.9xlarge  c5.12xlarge c5.18xlarge c5.24xlarge c5.metal</pre>
C5a	c5a.large   c5a.xlarge   c5a.2xlarge   c5a.4xlarge   c5a.8xlar ge   c5a.12xlarge   c5a.16xlarge   c5a.24xlarge
C5ad	<pre>c5ad.large   c5ad.xlarge   c5ad.2xlarge   c5ad.4xlarge   c5ad.8xlarge   c5ad.12xlarge   c5ad.16xlarge   c5ad.24xlarge</pre>
C5d	c5d.large   c5d.xlarge   c5d.2xlarge   c5d.4xlarge   c5d.9xlar ge   c5d.12xlarge   c5d.18xlarge   c5d.24xlarge   c5d.metal
C5n	c5n.large   c5n.xlarge   c5n.2xlarge   c5n.4xlarge   c5n.9xlar ge   c5n.18xlarge   c5n.metal
C6a	c6a.large   c6a.xlarge   c6a.2xlarge   c6a.4xlarge   c6a.8xlar ge   c6a.12xlarge   c6a.16xlarge   c6a.24xlarge   c6a.32xlarge   c6a.48xlarge   c6a.metal
C6g	<pre>c6g.medium   c6g.large   c6g.xlarge   c6g.2xlarge   c6g.4xlarge   c6g.8xlarge   c6g.12xlarge   c6g.16xlarge   c6g.metal</pre>
C6gd	c6gd.medium   c6gd.large   c6gd.xlarge   c6gd.2xlarge   c6gd.4xlarge   c6gd.8xlarge   c6gd.12xlarge   c6gd.16xlarge   c6gd.metal

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Instance type	Available sizes
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.8xlar ge   c6i.12xlarge   c6i.16xlarge   c6i.24xlarge   c6i.32xlarge   c6i.metal
C6id	c6id.large   c6id.xlarge   c6id.2xlarge   c6id.4xlarge   c6id.8xlarge   c6id.12xlarge   c6id.16xlarge   c6id.24xlarge   c6id.32xlarge   c6id.metal
C6in	c6in.large   c6in.xlarge   c6in.2xlarge   c6in.4xlarge   c6in.8xlarge   c6in.12xlarge   c6in.16xlarge   c6in.24xlarge   c6in.32xlarge   c6in.metal
C7a	c7a.medium   c7a.large   c7a.xlarge   c7a.2xlarge   c7a.4xlar ge   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	<pre>c7gd.medium   c7gd.large   c7gd.xlarge   c7gd.2xlarge   c7gd.4xlarge   c7gd.8xlarge   c7gd.12xlarge   c7gd.16xlarge   c7gd.metal</pre>
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.8xlar ge   c7i.12xlarge   c7i.16xlarge   c7i.24xlarge   c7i.48xlarge   c7i.metal-24xl   c7i.metal-48xl
C7i-flex	<pre>c7i-flex.large   c7i-flex.xlarge   c7i-flex.2xlarge   c7i-flex. 4xlarge   c7i-flex.8xlarge</pre>

Available sizes 100

# **Platform summary**

Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
C5	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
C5a	Nitro v2	AMD (x86_64)	x	X	✓	x	Windows   Linux
C5ad	Nitro v2	AMD (x86_64)	x	X	✓	X	Windows   Linux
C5d	Nitro v2	Intel (x86_64)	✓	✓	1	✓	Windows   Linux
C5n	Nitro v3	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
C6a	Nitro v4	AMD (x86_64)	✓	✓	✓	X	Windows   Linux
C6g	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C6gd	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C6gn	Nitro v4	AWS Graviton (arm64)	X	✓	✓	✓	Linux
C6i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux

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Instance type	Hypervis r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
C6id	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
C6in	Nitro v4	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
C7a	Nitro v4	AMD (x86_64)	✓	✓	✓	✓	Windows   Linux
C7g	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C7gd	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
C7gn	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	X	Linux
C7i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
C7i- flex	Nitro v4	Intel (x86_64)	X	X	✓	✓	Windows   Linux

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# **Performance specifications**

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			C5					
c5.large	X	4.00	Intel Xeon Platinum 8124M	2	1	2	X	X
c5.xlarge	X	8.00	Intel Xeon Platinum 8124M	4	2	2	X	X
c5.2xlarge	X	16.00	Intel Xeon Platinum 8124M	8	4	2	X	X
c5.4xlarge	X	32.00	Intel Xeon Platinum 8124M	16	8	2	X	X
c5.9xlarge	X	72.00	Intel Xeon Platinum 8124M	36	18	2	X	X
c5.12xlarge	X	96.00	2nd Gen Intel Xeon Platinum 8275CL	48	24	2	X	X
c5.18xlarge	X	144.00	Intel Xeon Platinum 8124M	72	36	2	X	X
c5.24xlarge	X	192.00	2nd Gen Intel Xeon	96	48	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			Platinum 8275CL					
c5.metal	x	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	X	X
			C5a					
c5a.large	X	4.00	2nd Gen AMD EPYC 7R32	2	1	2	X	X
c5a.xlarge	X	8.00	2nd Gen AMD EPYC 7R32	4	2	2	X	X
c5a.2xlarge	X	16.00	2nd Gen AMD EPYC 7R32	8	4	2	X	X
c5a.4xlarge	X	32.00	2nd Gen AMD EPYC 7R32	16	8	2	X	X
c5a.8xlarge	X	64.00	2nd Gen AMD EPYC 7R32	32	16	2	X	X
c5a.12xlarge	X	96.00	2nd Gen AMD EPYC 7R32	48	24	2	X	X
c5a.16xlarge	X	128.00	2nd Gen AMD EPYC 7R32	64	32	2	X	X
c5a.24xlarge	X	192.00	2nd Gen AMD EPYC 7R32	96	48	2	X	X
C5ad								

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
c5ad.large	X	4.00	2nd Gen AMD EPYC 7R32	2	1	2	X	X
c5ad.xlarge	X	8.00	2nd Gen AMD EPYC 7R32	4	2	2	X	X
c5ad.2xlarge	X	16.00	2nd Gen AMD EPYC 7R32	8	4	2	X	X
c5ad.4xlarge	X	32.00	2nd Gen AMD EPYC 7R32	16	8	2	X	X
c5ad.8xlarge	X	64.00	2nd Gen AMD EPYC 7R32	32	16	2	x	X
c5ad.12xl arge	X	96.00	2nd Gen AMD EPYC 7R32	48	24	2	X	X
c5ad.16xl arge	X	128.00	2nd Gen AMD EPYC 7R32	64	32	2	x	X
c5ad.24xl arge	X	192.00	2nd Gen AMD EPYC 7R32	96	48	2	x	X
			C5d					
c5d.large	X	4.00	Intel Xeon Platinum 8124M	2	1	2	X	X
c5d.xlarge	X	8.00	Intel Xeon Platinum 8124M	4	2	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory	
c5d.2xlarge	X	16.00	Intel Xeon Platinum 8124M	8	4	2	X	X	
c5d.4xlarge	X	32.00	Intel Xeon Platinum 8124M	16	8	2	X	X	
c5d.9xlarge	X	72.00	Intel Xeon Platinum 8124M	36	18	2	X	X	
c5d.12xlarge	X	96.00	2nd Gen Intel Xeon Platinum 8275CL	48	24	2	X	X	
c5d.18xlarge	X	144.00	Intel Xeon Platinum 8124M	72	36	2	X	X	
c5d.24xlarge	X	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	X	X	
c5d.metal	X	192.00	2nd Gen Intel Xeon Platinum 8275CL	96	48	2	X	X	
C5n									

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory	
c5n.large	X	5.25	Intel Xeon Platinum 8124M	2	1	2	X	X	
c5n.xlarge	X	10.50	Intel Xeon Platinum 8124M	4	2	2	X	X	
c5n.2xlarge	X	21.00	Intel Xeon Platinum 8124M	8	4	2	X	X	
c5n.4xlarge	X	42.00	Intel Xeon Platinum 8124M	16	8	2	X	X	
c5n.9xlarge	X	96.00	Intel Xeon Platinum 8124M	36	18	2	X	X	
c5n.18xlarge	X	192.00	Intel Xeon Platinum 8124M	72	36	2	X	X	
c5n.metal	X	192.00	Intel Xeon Platinum 8124M	72	36	2	X	X	
C6a									
c6a.large	X	4.00	AMD EPYC 7R13	2	1	2	X	X	
c6a.xlarge	X	8.00	AMD EPYC 7R13	4	2	2	X	X	

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory	
c6g.large	X	4.00	AWS Graviton2 Processor	2	2	1	X	X	
c6g.xlarge	x	8.00	AWS Graviton2 Processor	4	4	1	X	X	
c6g.2xlarge	x	16.00	AWS Graviton2 Processor	8	8	1	X	X	
c6g.4xlarge	x	32.00	AWS Graviton2 Processor	16	16	1	X	X	
c6g.8xlarge	x	64.00	AWS Graviton2 Processor	32	32	1	X	X	
c6g.12xlarge	X	96.00	AWS Graviton2 Processor	48	48	1	X	X	
c6g.16xlarge	x	128.00	AWS Graviton2 Processor	64	64	1	X	X	
c6g.metal	x	128.00	AWS Graviton2 Processor	64	64	1	X	X	
C6gd									

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
c6gd.medi um	X	2.00	AWS Graviton2 Processor	1	1	1	X	X
c6gd.large	X	4.00	AWS Graviton2 Processor	2	2	1	X	X
c6gd.xlarge	X	8.00	AWS Graviton2 Processor	4	4	1	X	X
c6gd.2xlarge	X	16.00	AWS Graviton2 Processor	8	8	1	X	X
c6gd.4xlarge	X	32.00	AWS Graviton2 Processor	16	16	1	X	X
c6gd.8xlarge	X	64.00	AWS Graviton2 Processor	32	32	1	X	X
c6gd.12xl arge	X	96.00	AWS Graviton2 Processor	48	48	1	X	X
c6gd.16xl arge	X	128.00	AWS Graviton2 Processor	64	64	1	X	X
c6gd.metal	X	128.00	AWS Graviton2 Processor	64	64	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Acceleration or memory	
C6gn									
c6gn.medi um	x	2.00	AWS Graviton2 Processor	1	1	1	x	x	
c6gn.large	x	4.00	AWS Graviton2 Processor	2	2	1	X	X	
c6gn.xlarge	x	8.00	AWS Graviton2 Processor	4	4	1	X	x	
c6gn.2xlarge	x	16.00	AWS Graviton2 Processor	8	8	1	X	X	
c6gn.4xlarge	x	32.00	AWS Graviton2 Processor	16	16	1	X	x	
c6gn.8xlarge	x	64.00	AWS Graviton2 Processor	32	32	1	X	X	
c6gn.12xl arge	x	96.00	AWS Graviton2 Processor	48	48	1	X	X	
c6gn.16xl arge	x	128.00	AWS Graviton2 Processor	64	64	1	X	X	
C6i									

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
c6id.xlarge	X	8.00	Intel Xeon Ice Lake	4	2	2	X	X
c6id.2xlarge	X	16.00	Intel Xeon Ice Lake	8	4	2	X	X
c6id.4xlarge	X	32.00	Intel Xeon Ice Lake	16	8	2	X	X
c6id.8xlarge	X	64.00	Intel Xeon Ice Lake	32	16	2	x	X
c6id.12xl arge	X	96.00	Intel Xeon Ice Lake	48	24	2	x	X
c6id.16xl arge	X	128.00	Intel Xeon Ice Lake	64	32	2	x	X
c6id.24xl arge	X	192.00	Intel Xeon Ice Lake	96	48	2	x	X
c6id.32xl arge	X	256.00	Intel Xeon Ice Lake	128	64	2	x	X
c6id.metal	X	256.00	Intel Xeon Ice Lake	128	64	2	x	X
			C6in					
c6in.large	X	4.00	Intel Xeon Ice Lake	2	1	2	X	X
c6in.xlarge	X	8.00	Intel Xeon Ice Lake	4	2	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
c6in.2xlarge	X	16.00	Intel Xeon Ice Lake	8	4	2	X	X
c6in.4xlarge	X	32.00	Intel Xeon Ice Lake	16	8	2	X	X
c6in.8xlarge	X	64.00	Intel Xeon Ice Lake	32	16	2	x	X
c6in.12xl arge	x	96.00	Intel Xeon Ice Lake	48	24	2	X	X
c6in.16xl arge	X	128.00	Intel Xeon Ice Lake	64	32	2	x	X
c6in.24xl arge	X	192.00	Intel Xeon Ice Lake	96	48	2	X	X
c6in.32xl arge	X	256.00	Intel Xeon Ice Lake	128	64	2	X	X
c6in.metal	X	256.00	Intel Xeon Ice Lake	128	64	2	X	X
			<b>C7</b> a					
c7a.medium	X	2.00	AMD EPYC 9R14	1	1	1	X	X
c7a.large	X	4.00	AMD EPYC 9R14	2	2	1	X	X
c7a.xlarge	x	8.00	AMD EPYC 9R14	4	4	1	X	X

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
c7g.large	x	4.00	AWS Graviton3 Processor	2	2	1	X	X
c7g.xlarge	x	8.00	AWS Graviton3 Processor	4	4	1	X	X
c7g.2xlarge	X	16.00	AWS Graviton3 Processor	8	8	1	X	X
c7g.4xlarge	X	32.00	AWS Graviton3 Processor	16	16	1	X	X
c7g.8xlarge	X	64.00	AWS Graviton3 Processor	32	32	1	X	X
c7g.12xlarge	X	96.00	AWS Graviton3 Processor	48	48	1	X	X
c7g.16xlarge	X	128.00	AWS Graviton3 Processor	64	64	1	X	X
c7g.metal	X	128.00	AWS Graviton3 Processor	64	64	1	X	X
			C7gd	I				

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelera or memory
c7gd.medi um	X	2.00	AWS Graviton3 Processor	1	1	1	X	x
c7gd.large	X	4.00	AWS Graviton3 Processor	2	2	1	X	x
c7gd.xlarge	X	8.00	AWS Graviton3 Processor	4	4	1	X	x
c7gd.2xlarge	X	16.00	AWS Graviton3 Processor	8	8	1	X	x
c7gd.4xlarge	X	32.00	AWS Graviton3 Processor	16	16	1	X	X
c7gd.8xlarge	X	64.00	AWS Graviton3 Processor	32	32	1	X	X
c7gd.12xl arge	X	96.00	AWS Graviton3 Processor	48	48	1	X	X
c7gd.16xl arge	X	128.00	AWS Graviton3 Processor	64	64	1	X	X
c7gd.metal	X	128.00	AWS Graviton3 Processor	64	64	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			C7gn					
c7gn.medi um	X	2.00	AWS Graviton3E Processor	1	1	1	X	X
c7gn.large	X	4.00	AWS Graviton3E Processor	2	2	1	X	X
c7gn.xlarge	X	8.00	AWS Graviton3E Processor	4	4	1	X	X
c7gn.2xlarge	X	16.00	AWS Graviton3E Processor	8	8	1	X	X
c7gn.4xlarge	X	32.00	AWS Graviton3E Processor	16	16	1	X	X
c7gn.8xlarge	X	64.00	AWS Graviton3E Processor	32	32	1	X	X
c7gn.12xl arge	X	96.00	AWS Graviton3E Processor	48	48	1	X	X
c7gn.16xl arge	X	128.00	AWS Graviton3E Processor	64	64	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Acceleration or memory
c7gn.metal	X	128.00	AWS Graviton3E Processor	64	64	1	X	X
			C7i					
c7i.large	X	4.00	Intel Xeon Sapphire Rapids	2	1	2	X	X
c7i.xlarge	X	8.00	Intel Xeon Sapphire Rapids	4	2	2	X	X
c7i.2xlarge	X	16.00	Intel Xeon Sapphire Rapids	8	4	2	X	X
c7i.4xlarge	X	32.00	Intel Xeon Sapphire Rapids	16	8	2	X	X
c7i.8xlarge	X	64.00	Intel Xeon Sapphire Rapids	32	16	2	X	X
c7i.12xlarge	X	96.00	Intel Xeon Sapphire Rapids	48	24	2	X	X
c7i.16xlarge	X	128.00	Intel Xeon Sapphire Rapids	64	32	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
c7i.24xlarge	X	192.00	Intel Xeon Sapphire Rapids	96	48	2	X	X
c7i.48xlarge	X	384.00	Intel Xeon Sapphire Rapids	192	96	2	X	X
c7i.metal -24xl	X	192.00	Intel Xeon Sapphire Rapids	96	48	2	X	X
c7i.metal -48xl	X	384.00	Intel Xeon Sapphire Rapids	192	96	2	X	X
			C7i-fle	ex				
c7i-flex. large	X	4.00	Intel Xeon Sapphire Rapids	2	1	2	X	X
c7i-flex. xlarge	X	8.00	Intel Xeon Sapphire Rapids	4	2	2	X	X
c7i-flex. 2xlarge	X	16.00	Intel Xeon Sapphire Rapids	8	4	2	X	X
c7i-flex. 4xlarge	X	32.00	Intel Xeon Sapphire Rapids	16	8	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
c7i-flex. 8xlarge	X	64.00	Intel Xeon Sapphire Rapids	32	16	2	X	X

# **Network specifications**

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
				<b>C</b> 5				
c5.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
c5.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
c5.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
c5.4xlarge <sup>1</sup>	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	✓
			(	.5a				
c5a.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c5a.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
c5a.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
c5a.4xlarge <sup>1</sup>	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	✓
			C	5ad				
c5ad.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
c5ad.xlarge <sup>1</sup>	1.25 / 10.0	x	✓	x	1	4	15	✓
c5ad.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	x	1	4	15	✓
c5ad.4xlarge <sup>1</sup>	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	✓
			C	.5d				
c5d.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
c5d.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	x	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c5d.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
c5d.4xlarge <sup>1</sup>	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	✓
			C	.5n				
c5n.large <sup>1</sup>	3.0 / 25.0	X	✓	X	1	3	10	✓
c5n.xlarge <sup>1</sup>	5.0 / 25.0	X	✓	x	1	4	15	✓
c5n.2xlarge <sup>1</sup>	10.0 / 25.0	x	✓	x	1	4	15	✓
c5n.4xlarge <sup>1</sup>	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	✓
			C	.6a				
c6a.large <sup>1</sup>	0.781 / 12.5	X	✓	x	1	3	10	✓
c6a.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
c6a.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c6a.4xlarge <sup>1</sup>	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	✓	✓	1	8	30	✓
c6a.16xlarge	25 Gigabit	X	✓	✓	1	15	50	✓
c6a.24xlarge	37.5 Gigabit	X	✓	✓	1	15	50	✓
c6a.32xlarge	50 Gigabit	X	✓	✓	1	15	50	✓
c6a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c6a.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
			C	.6g				
c6g.medium <sup>1</sup>	0.5 / 10.0	X	✓	X	1	2	4	✓
c6g.large <sup>1</sup>	0.75 / 10.0	X	✓	x	1	3	10	✓
c6g.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
c6g.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
c6g.4xlarge <sup>1</sup>	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	✓
			C	6gd				

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c6gd.medium	0.5 / 10.0	X	✓	X	1	2	4	✓
c6gd.large <sup>1</sup>	0.75 / 10.0	X	✓	x	1	3	10	✓
c6gd.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	x	1	4	15	✓
c6gd.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	x	1	4	15	✓
c6gd.4xlarge <sup>1</sup>	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	✓
			C	6gn				
c6gn.medium 1	1.6 / 16.0	X	✓	X	1	2	4	✓
c6gn.large <sup>1</sup>	3.0 / 25.0	X	✓	X	1	3	10	✓
c6gn.xlarge <sup>1</sup>	6.3 / 25.0	X	✓	X	1	4	15	✓
c6gn.2xlarge <sup>1</sup>	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c6gn.16xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
			(	<b>C6i</b>				
c6i.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
c6i.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
c6i.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	x	1	4	15	✓
c6i.4xlarge <sup>1</sup>	6.25 / 12.5	X	✓	X	1	8	30	✓
c6i.8xlarge	12.5 Gigabit	X	✓	✓	1	8	30	✓
c6i.12xlarge	18.75 Gigabit	X	✓	✓	1	8	30	✓
c6i.16xlarge	25 Gigabit	X	✓	✓	1	15	50	✓
c6i.24xlarge	37.5 Gigabit	X	✓	✓	1	15	50	✓
c6i.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c6i.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
			c	6id				
c6id.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
c6id.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	x	1	4	15	✓
c6id.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
c6id.4xlarge <sup>1</sup>	6.25 / 12.5	X	✓	x	1	8	30	✓
c6id.8xlarge	12.5 Gigabit	X	✓	✓	1	8	30	✓
c6id.12xlarge	18.75 Gigabit	X	✓	✓	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c6id.16xlarge	25 Gigabit	X	✓	✓	1	15	50	✓
c6id.24xlarge	37.5 Gigabit	X	✓	✓	1	15	50	✓
c6id.32xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
c6id.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
			c	6in				
c6in.large <sup>1</sup>	3.125 / 25.0	X	✓	x	1	3	10	✓
c6in.xlarge <sup>1</sup>	6.25 / 30.0	X	✓	x	1	4	15	✓
c6in.2xlarge <sup>1</sup>	12.5 / 40.0	X	✓	x	1	4	15	✓
c6in.4xlarge <sup>1</sup>	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	16	50	✓
c6in.metal	200 Gigabit	✓	✓	X	2	16	50	✓
C7a								
c7a.medium <sup>1</sup>	0.39 / 12.5	X	✓	X	1	2	4	✓
c7a.large <sup>1</sup>	0.781 / 12.5	X	✓	x	1	3	10	✓
c7a.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c7a.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
c7a.4xlarge <sup>1</sup>	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	✓
			C	.7g				
c7g.medium <sup>1</sup>	0.52 / 12.5	X	✓	X	1	2	4	✓
c7g.large <sup>1</sup>	0.937 / 12.5	X	✓	X	1	3	10	✓
c7g.xlarge <sup>1</sup>	1.876 / 12.5	X	✓	X	1	4	15	✓
c7g.2xlarge <sup>1</sup>	3.75 / 15.0	X	✓	X	1	4	15	✓
c7g.4xlarge <sup>1</sup>	7.5 / 15.0	X	✓	x	1	8	30	✓
c7g.8xlarge	15 Gigabit	X	✓	X	1	8	30	✓
c7g.12xlarge	22.5 Gigabit	X	✓	✓	1	8	30	✓
c7g.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c7g.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
			C	7gd				
c7gd.medium 1	0.52 / 12.5	X	✓	X	1	2	4	✓
c7gd.large <sup>1</sup>	0.937 / 12.5	X	✓	X	1	3	10	✓
c7gd.xlarge <sup>1</sup>	1.876 / 12.5	X	✓	X	1	4	15	✓
c7gd.2xlarge <sup>1</sup>	3.75 / 15.0	X	✓	x	1	4	15	✓
c7gd.4xlarge <sup>1</sup>	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	✓
			C	7gn				
c7gn.medium 1	3.125 / 25.0	X	✓	X	1	2	4	✓
c7gn.large <sup>1</sup>	6.25 / 30.0	X	✓	X	1	3	10	✓
c7gn.xlarge <sup>1</sup>	12.5 / 40.0	X	✓	X	1	4	15	✓
c7gn.2xlarge <sup>1</sup>	25.0 / 50.0	X	✓	X	1	4	15	✓
c7gn.4xlarge	50 Gigabit	X	✓	x	1	8	30	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
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 <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
c7i.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
c7i.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
c7i.4xlarge <sup>1</sup>	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	✓
c7i.metal-24xl	37.5 Gigabit	X	✓	✓	1	15	50	✓
c7i.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
			C7i	i-flex				
c7i-flex.large <sup>1</sup>	0.39 / 12.5	X	✓	X	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c7i-flex.xlarge 1	0.781 / 12.5	X	✓	X	1	4	15	✓
c7i-flex. 2xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
c7i-flex. 4xlarge <sup>1</sup>	3.125 / 12.5	X	✓	x	1	8	30	✓
c7i-flex. 8xlarge <sup>1</sup>	6.25 / 12.5	X	✓	x	1	8	30	✓



## Note

<sup>1</sup> 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**

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

### 

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

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization 2				
	C5								
c5.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	4000.00 / 20000.00	✓	default				
c5.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 20000.00	✓	default				
c5.2xlarge <sup>1</sup>	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				

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
c5.24xlarge	19000.00	2375.00	80000.00	✓	default
c5.metal	19000.00	2375.00	80000.00	✓	default
		C	5a		
c5a.large <sup>1</sup>	200.00 / 3170.00	25.00 / 396.25	800.00 / 13300.00	✓	default
c5a.xlarge <sup>1</sup>	400.00 / 3170.00	50.00 / 396.25	1600.00 / 13300.00	✓	default
c5a.2xlarge <sup>1</sup>	800.00 / 3170.00	100.00 / 396.25	3200.00 / 13300.00	✓	default
c5a.4xlarge <sup>1</sup>	1580.00 / 3170.00	197.50 / 396.25	6600.00 / 13300.00	✓	default
c5a.8xlarge	3170.00	396.25	13300.00	✓	default
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
		C5	ad		
c5ad.large <sup>1</sup>	200.00 / 3170.00	25.00 / 396.25	800.00 / 13300.00	✓	default
c5ad.xlarge <sup>1</sup>	400.00 / 3170.00	50.00 / 396.25	1600.00 / 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
c5ad.2xlarge 1	800.00 / 3170.00	100.00 / 396.25	3200.00 / 13300.00	✓	default
c5ad.4xlarge	1580.00 / 3170.00	197.50 / 396.25	6600.00 / 13300.00	✓	default
c5ad.8xlarge	3170.00	396.25	13300.00	✓	default
c5ad.12xl arge	4750.00	593.75	20000.00	✓	default
c5ad.16xl arge	6300.00	787.50	26700.00	✓	default
c5ad.24xl arge	9500.00	1187.50	40000.00	✓	default
		Ci	5d		
c5d.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	4000.00 / 20000.00	✓	default
c5d.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 20000.00	✓	default
c5d.2xlarge <sup>1</sup>	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

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.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
		C	5n		
c5n.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	4000.00 / 20000.00	✓	default
c5n.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 20000.00	✓	default
c5n.2xlarge <sup>1</sup>	2300.00 / 4750.00	287.50 / 593.75	10000.00 / 20000.00	✓	default
c5n.4xlarge	4750.00	593.75	20000.00	✓	default
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
		C	5a		
c6a.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c6a.xlarge <sup>1</sup>	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
c6a.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c6a.4xlarge <sup>1</sup>	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
		Ce	5g		
c6g.medium 1	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
c6g.large <sup>1</sup>	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
c6g.xlarge <sup>1</sup>	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
c6g.2xlarge <sup>1</sup>	2375.00 / 4750.00	296.88 / 593.75	12000.00 / 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
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
		C6	gd		
c6gd.medium	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
c6gd.large <sup>1</sup>	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
c6gd.xlarge <sup>1</sup>	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
c6gd.2xlarge	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.12xl arge	14250.00	1781.25	50000.00	✓	default
c6gd.16xl arge	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
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 <sup>1</sup>	1235.00 / 9500.00	154.38 / 1187.50	5000.00 / 40000.00	✓	default
c6gn.xlarge <sup>1</sup>	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
c6gn.12xl arge	28500.00	3562.50	120000.00	✓	default
c6gn.16xl arge	38000.00	4750.00	160000.00	✓	default
C6i					
c6i.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c6i.xlarge <sup>1</sup>	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
c6i.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c6i.4xlarge <sup>1</sup>	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
		C6	iid		
c6id.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c6id.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c6id.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c6id.4xlarge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c6id.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
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
		C6	Sin		
c6in.large <sup>1</sup>	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	default
c6in.xlarge <sup>1</sup>	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	default
c6in.2xlarge <sup>1</sup>	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	default
c6in.4xlarge <sup>1</sup>	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

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
		C	7a		
c7a.medium	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 40000.00	✓	default
c7a.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c7a.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c7a.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c7a.4xlarge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c7a.8xlarge	10000.00	1250.00	40000.00	✓	default
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
		C	7g		

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.medium	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
c7g.large <sup>1</sup>	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
c7g.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c7g.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c7g.4xlarge <sup>1</sup>	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
c7g.16xlarge	20000.00	2500.00	80000.00	✓	default
c7g.metal	20000.00	2500.00	80000.00	✓	default
		<b>C7</b>	gd		
c7gd.medium	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
c7gd.large <sup>1</sup>	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
c7gd.xlarge <sup>1</sup>	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
c7gd.2xlarge	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c7gd.4xlarge	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
c7gd.8xlarge	10000.00	1250.00	40000.00	✓	default
c7gd.12xl arge	15000.00	1875.00	60000.00	✓	default
c7gd.16xl arge	20000.00	2500.00	80000.00	✓	default
c7gd.metal	20000.00	2500.00	80000.00	✓	default
		<b>C7</b>	gn		
c7gn.medium	521.00 / 10000.00	65.12 / 1250.00	2083.00 / 40000.00	✓	default
c7gn.large <sup>1</sup>	1042.00 / 10000.00	130.25 / 1250.00	4167.00 / 40000.00	✓	default
c7gn.xlarge <sup>1</sup>	2083.00 / 10000.00	260.38 / 1250.00	8333.00 / 40000.00	✓	default
c7gn.2xlarge	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

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.8xlarge 1	16667.00 / 20000.00	2083.38 / 2500.00	66667.00 / 80000.00	✓	default
c7gn.12xl arge <sup>1</sup>	25000.00 / 30000.00	3125.00 / 3750.00	100000.00 / 120000.00	✓	default
c7gn.16xl arge <sup>1</sup>	33333.00 / 40000.00	4166.62 / 5000.00	133333.00 / 160000.00	✓	default
c7gn.metal <sup>1</sup>	33333.00 / 40000.00	4166.62 / 5000.00	133333.00 / 160000.00	✓	default
		C	7i		
c7i.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
c7i.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c7i.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c7i.4xlarge <sup>1</sup>	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

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.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
		C7i-	·flex		
c7i-flex.large	312.00 / 10000.00	39.06 / 1250.00	2500.00 / 40000.00	✓	default
c7i-flex. xlarge <sup>1</sup>	625.00 / 10000.00	78.12 / 1250.00	3600.00 / 40000.00	✓	default
c7i-flex. 2xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
c7i-flex. 4xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
c7i-flex. 8xlarge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default

### Note

<sup>&</sup>lt;sup>1</sup> 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.

<sup>2</sup> 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**

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

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
		C5	ad		
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		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
		C	5d		
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		✓
		C6	igd		
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	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	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		✓
		Cé	Sid		
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	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	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		✓
		<b>C</b> 7	'gd		
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	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	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		✓

<sup>&</sup>lt;sup>1</sup> Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see Optimize disk performance for instance store volumes.

## **Security specifications**

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n 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	✓	✓		

<sup>&</sup>lt;sup>2</sup> For more information, see <u>Instance store volume TRIM support</u>.

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n 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 encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c5a.xlarge	✓	Instance store not supported	✓	X	✓	✓
c5a.2xlarge	✓	Instance store not supported	✓	x	✓	✓
c5a.4xlarge	✓	Instance store not supported	✓	X	✓	✓
c5a.8xlarge	✓	Instance store not supported	✓	X	✓	✓
c5a.12xlarge	✓	Instance store not supported	✓	X	✓	✓
c5a.16xlarge	✓	Instance store not supported	✓	X	✓	✓
c5a.24xlarge	✓	Instance store not supported	✓	X	✓	✓
			C5ad			
c5ad.large	✓	✓	✓	X	✓	X
c5ad.xlarge	✓	✓	✓	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n 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 encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
c5n.large	✓	Instance store not supported	✓	X	✓	X		
c5n.xlarge	✓	Instance store not supported	✓	X	✓	✓		
c5n.2xlarge	✓	Instance store not supported	✓	X	✓	✓		
c5n.4xlarge	✓	Instance store not supported	✓	X	✓	✓		
c5n.9xlarge	✓	Instance store not supported	✓	X	✓	✓		
c5n.18xlarge	✓	Instance store not supported	✓	X	✓	✓		
c5n.metal	✓	Instance store not supported	✓	X	X	X		
C6a								
c6a.large	✓	Instance store not supported	✓	✓	✓	X		

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n 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	✓	x	✓	✓
c6a.32xlarge	✓	Instance store not supported	✓	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n 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
c6g.large	✓	Instance store not supported	x	X	✓	✓
c6g.xlarge	✓	Instance store not supported	x	x	✓	✓
c6g.2xlarge	✓	Instance store not supported	x	X	✓	✓
c6g.4xlarge	✓	Instance store not supported	x	X	✓	✓
c6g.8xlarge	✓	Instance store not supported	X	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6g.12xlarge	✓	Instance store not supported	X	X	✓	✓
c6g.16xlarge	✓	Instance store not supported	X	X	✓	✓
c6g.metal	✓	Instance store not supported	X	X	x	X
		(	C6gd			
c6gd.medium	✓	✓	x	x	✓	x
c6gd.large	✓	✓	x	X	✓	✓
c6gd.xlarge	✓	✓	x	X	✓	✓
c6gd.2xlarge	✓	✓	x	x	✓	✓
c6gd.4xlarge	✓	✓	x	x	✓	✓
c6gd.8xlarge	✓	✓	x	x	✓	✓
c6gd.12xlarge	✓	✓	X	X	✓	✓
c6gd.16xlarge	✓	✓	X	X	✓	✓
c6gd.metal	✓	✓	X	X	x	X
		(	C6gn			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6gn.medium	✓	Instance store not supported	✓	X	✓	X
c6gn.large	✓	Instance store not supported	✓	X	✓	✓
c6gn.xlarge	✓	Instance store not supported	✓	X	✓	✓
c6gn.2xlarge	✓	Instance store not supported	✓	X	✓	✓
c6gn.4xlarge	✓	Instance store not supported	✓	X	✓	✓
c6gn.8xlarge	✓	Instance store not supported	✓	X	✓	✓
c6gn.12xlarge	✓	Instance store not supported	✓	x	✓	✓
c6gn.16xlarge	✓	Instance store not supported	✓	X	✓	✓
			C6i			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c6i.large	✓	Instance store not supported	✓	x	✓	X
c6i.xlarge	✓	Instance store not supported	✓	x	✓	✓
c6i.2xlarge	✓	Instance store not supported	✓	X	✓	✓
c6i.4xlarge	✓	Instance store not supported	✓	x	✓	✓
c6i.8xlarge	✓	Instance store not supported	✓	x	✓	✓
c6i.12xlarge	✓	Instance store not supported	✓	X	✓	✓
c6i.16xlarge	✓	Instance store not supported	✓	x	✓	✓
c6i.24xlarge	✓	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n 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 encryptio n	Instance store encryptio n	Encryptio n 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	<b>√</b>	Instance store not supported	✓	X	✓	✓
c6in.24xlarge	✓	Instance store not supported	✓	x	✓	✓
c6in.32xlarge	✓	Instance store not supported	✓	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n 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 encryptio n	Instance store encryptio n	Encryptio n 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
c7g.large	✓	Instance store not supported	✓	x	✓	✓
c7g.xlarge	✓	Instance store not supported	✓	X	✓	✓

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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7gd.4xlarge	✓	✓	✓	X	✓	x
c7gd.8xlarge	✓	✓	✓	x	✓	x
c7gd.12xlarge	✓	✓	✓	x	✓	x
c7gd.16xlarge	✓	✓	✓	x	✓	x
c7gd.metal	✓	✓	✓	x	X	x
		(	C7gn			
c7gn.medium	✓	Instance store not supported	✓	x	✓	X
c7gn.large	✓	Instance store not supported	✓	x	✓	x
c7gn.xlarge	✓	Instance store not supported	✓	x	✓	X
c7gn.2xlarge	✓	Instance store not supported	<b>√</b>	x	<b>√</b>	X
c7gn.4xlarge	✓	Instance store not supported	✓	X	✓	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7gn.8xlarge	✓	Instance store not supported	✓	X	✓	X
c7gn.12xlarge	✓	Instance store not supported	✓	X	✓	X
c7gn.16xlarge	✓	Instance store not supported	✓	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 encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
c7i.8xlarge	✓	Instance store not supported	✓	x	✓	X		
c7i.12xlarge	<b>√</b>	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		
C7i-flex								
c7i-flex.large	✓	Instance store not supported	✓	X	✓	X		

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c7i-flex.xlarge	✓	Instance store not supported	✓	x	✓	X
c7i-flex.2xlarge	✓	Instance store not supported	✓	X	✓	X
c7i-flex.4xlarge	✓	Instance store not supported	✓	x	✓	X
c7i-flex.8xlarge	✓	Instance store not supported	✓	x	✓	X

## **Specifications for Amazon EC2 memory optimized instances**

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

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

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- Available sizes
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### • Security specifications

### Pricing

For pricing information, see <u>Amazon EC2 On-Demand Pricing</u>.

### **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.8xlar ge  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.8xlar ge  r5b.12xlarge  r5b.16xlarge  r5b.24xlarge  r5b.metal
R5d	r5d.large  r5d.xlarge  r5d.2xlarge  r5d.4xlarge  r5d.8xlar ge  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.8xlar ge  r5n.12xlarge  r5n.16xlarge  r5n.24xlarge  r5n.metal
R6a	r6a.large   r6a.xlarge   r6a.2xlarge   r6a.4xlarge   r6a.8xlar ge   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

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Instance type	Available sizes
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.8xlar ge   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.24x large   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.4xlar ge  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
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.8xlar ge   r7i.12xlarge   r7i.16xlarge   r7i.24xlarge   r7i.48xlarge   r7i.metal-24xl   r7i.metal-48xl

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Instance type	Available sizes
R7iz	r7iz.large  r7iz.xlarge  r7iz.2xlarge  r7iz.4xlarge   r7iz.8xlarge  r7iz.12xlarge  r7iz.16xlarge  r7iz.32xlarge   r7iz.metal-16xl  r7iz.metal-32xl
R8g	r8g.medium   r8g.large   r8g.xlarge   r8g.2xlarge   r8g.4xlar ge   r8g.8xlarge   r8g.12xlarge   r8g.16xlarge   r8g.24xlarge   r8g.48xlarge   r8g.metal-24xl   r8g.metal-48xl
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
U7i-12tb	u7i-12tb.224xlarge
U7in-16tb	u7in-16tb.224xlarge
U7in-24tb	u7in-24tb.224xlarge
U7in-32tb	u7in-32tb.224xlarge
X1	x1.16xlarge  x1.32xlarge
X2gd	<pre>x2gd.medium  x2gd.large  x2gd.xlarge  x2gd.2xlarge   x2gd.4xlarge  x2gd.8xlarge  x2gd.12xlarge  x2gd.16xlarge   x2gd.metal</pre>
X2idn	x2idn.16xlarge   x2idn.24xlarge   x2idn.32xlarge   x2idn.metal

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Instance type	Available sizes
X2iedn	<pre>x2iedn.xlarge   x2iedn.2xlarge   x2iedn.4xlarge   x2iedn.8x large   x2iedn.16xlarge   x2iedn.24xlarge   x2iedn.32xlarge   x2iedn.metal</pre>
X2iezn	x2iezn.2xlarge  x2iezn.4xlarge  x2iezn.6xlarge  x2iezn.8x large  x2iezn.12xlarge  x2iezn.metal
X1e	<pre>x1e.xlarge   x1e.2xlarge   x1e.4xlarge   x1e.8xlarge   x1e.16xla rge   x1e.32xlarge</pre>
z1d	<pre>z1d.large   z1d.xlarge   z1d.2xlarge   z1d.3xlarge   z1d.6xlar ge   z1d.12xlarge   z1d.metal</pre>

# **Platform summary**

Instance type	Hypervis r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
R5	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
R5a	Nitro v2	AMD (x86_64)	x	✓	✓	✓	Windows   Linux
R5ad	Nitro v2	AMD (x86_64)	x	X	✓	✓	Windows   Linux
R5b	Nitro v2	Intel (x86_64)	✓	✓	✓	x	Windows   Linux
R5d	Nitro v2	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux

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Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supporte operating systems
R5dn	Nitro v3	Intel (x86_64)	✓	✓	✓	x	Windows   Linux
R5n	Nitro v3	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
R6a	Nitro v4	AMD (x86_64)	✓	✓	✓	X	Windows   Linux
R6g	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R6gd	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R6i	Nitro v4	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
R6idn	Nitro v4	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
R6in	Nitro v4	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
R6id	Nitro v4	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
R7a	Nitro v4	AMD (x86_64)	✓	✓	✓	✓	Windows   Linux

Platform summary 173

Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
R7g	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R7gd	Nitro v4	AWS Graviton (arm64)	✓	✓	✓	✓	Linux
R7i	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
R7iz	Nitro v4	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
R8g	Nitro v5	AWS Graviton (arm64)	✓	✓	✓	X	Linux
U-3tb1	Nitro v3	Intel (x86_64)	X	X	X	X	Windows   Linux
U-6tb1	Nitro v3	Intel (x86_64)	✓	✓	X	X	Windows   Linux
U-9tb1	Nitro v3	Intel (x86_64)	✓	✓	X	X	Windows   Linux
U-12tb1	Nitro v3	Intel (x86_64)	✓	✓	x	x	Windows   Linux
U-18tb1	Nitro v3	Intel (x86_64)	✓	✓	X	X	Windows   Linux

Platform summary 174

Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
U-24tb1	Nitro v3	Intel (x86_64)	✓	✓	X	X	Windows   Linux
U7i-12tt	Nitro v4	Intel (x86_64)	X	✓	X	X	Windows   Linux
U7in-161	Nitro v4	Intel (x86_64)	X	✓	X	X	Windows   Linux
U7in-241	Nitro v4	Intel (x86_64)	X	✓	X	X	Windows   Linux
U7in-321	Nitro v4	Intel (x86_64)	X	✓	X	X	Windows   Linux
X1	Xen	Intel (x86_64)	X	✓	✓	X	Windows   Linux
X2gd	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	X	Linux
X2idn	Nitro v4	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
X2iedn	Nitro v4	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
X2iezn	Nitro v3	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
X1e	Xen	Intel (x86_64)	X	✓	✓	x	Windows   Linux

Platform summary 175

Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
z1d	Nitro v2	Intel (x86_64)	✓	✓	✓	X	Windows   Linux

## **Performance specifications**

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			R5					
r5.large	X	16.00	Intel Xeon Platinum 8175	2	1	2	X	X
r5.xlarge	X	32.00	Intel Xeon Platinum 8175	4	2	2	X	X
r5.2xlarge	X	64.00	Intel Xeon Platinum 8175	8	4	2	X	X
r5.4xlarge	X	128.00	Intel Xeon Platinum 8175	16	8	2	X	X
r5.8xlarge	X	256.00	Intel Xeon Platinum 8175	32	16	2	X	X

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory	
r5a.16xlarge	X	512.00	AMD EPYC 7571	64	32	2	x	X	
r5a.24xlarge	X	768.00	AMD EPYC 7571	96	48	2	X	X	
			R5ad						
r5ad.large	X	16.00	AMD EPYC 7571	2	1	2	x	X	
r5ad.xlarge	X	32.00	AMD EPYC 7571	4	2	2	X	X	
r5ad.2xlarge	X	64.00	AMD EPYC 7571	8	4	2	X	X	
r5ad.4xlarge	X	128.00	AMD EPYC 7571	16	8	2	X	X	
r5ad.8xlarge	X	256.00	AMD EPYC 7571	32	16	2	X	X	
r5ad.12xl arge	X	384.00	AMD EPYC 7571	48	24	2	X	X	
r5ad.16xl arge	X	512.00	AMD EPYC 7571	64	32	2	X	X	
r5ad.24xl arge	X	768.00	AMD EPYC 7571	96	48	2	X	X	
	R5b								

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r5b.large	X	16.00	Intel Xeon Platinum 8259	2	1	2	X	X
r5b.xlarge	X	32.00	Intel Xeon Platinum 8259	4	2	2	X	X
r5b.2xlarge	X	64.00	Intel Xeon Platinum 8259	8	4	2	X	X
r5b.4xlarge	X	128.00	Intel Xeon Platinum 8259	16	8	2	X	X
r5b.8xlarge	X	256.00	Intel Xeon Platinum 8259	32	16	2	X	X
r5b.12xlarge	X	384.00	Intel Xeon Platinum 8259	48	24	2	X	X
r5b.16xlarge	X	512.00	Intel Xeon Platinum 8259	64	32	2	X	X
r5b.24xlarge	X	768.00	Intel Xeon Platinum 8259	96	48	2	X	X
r5b.metal	X	768.00	Intel Xeon Platinum 8259	96	48	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			R5d					
r5d.large	X	16.00	Intel Xeon Platinum 8175	2	1	2	X	X
r5d.xlarge	X	32.00	Intel Xeon Platinum 8175	4	2	2	X	X
r5d.2xlarge	X	64.00	Intel Xeon Platinum 8175	8	4	2	X	X
r5d.4xlarge	X	128.00	Intel Xeon Platinum 8175	16	8	2	X	X
r5d.8xlarge	X	256.00	Intel Xeon Platinum 8175	32	16	2	X	X
r5d.12xlarge	X	384.00	Intel Xeon Platinum 8175	48	24	2	X	X
r5d.16xlarge	X	512.00	Intel Xeon Platinum 8175	64	32	2	X	X
r5d.24xlarge	X	768.00	Intel Xeon Platinum 8175	96	48	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r5d.metal	X	768.00	Intel Xeon Platinum 8175	96	48	2	X	X
			R5dn	ı				
r5dn.large	X	16.00	Intel Xeon Platinum 8259	2	1	2	X	X
r5dn.xlarge	X	32.00	Intel Xeon Platinum 8259	4	2	2	X	X
r5dn.2xlarge	X	64.00	Intel Xeon Platinum 8259	8	4	2	X	X
r5dn.4xlarge	X	128.00	Intel Xeon Platinum 8259	16	8	2	X	X
r5dn.8xlarge	X	256.00	Intel Xeon Platinum 8259	32	16	2	X	X
r5dn.12xl arge	X	384.00	Intel Xeon Platinum 8259	48	24	2	X	X
r5dn.16xl arge	X	512.00	Intel Xeon Platinum 8259	64	32	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r5dn.24xl arge	X	768.00	Intel Xeon Platinum 8259	96	48	2	X	X
r5dn.metal	X	768.00	Intel Xeon Platinum 8259	96	48	2	X	X
			R5n					
r5n.large	X	16.00	Intel Xeon Platinum 8259	2	1	2	X	X
r5n.xlarge	X	32.00	Intel Xeon Platinum 8259	4	2	2	X	X
r5n.2xlarge	X	64.00	Intel Xeon Platinum 8259	8	4	2	X	X
r5n.4xlarge	X	128.00	Intel Xeon Platinum 8259	16	8	2	X	X
r5n.8xlarge	X	256.00	Intel Xeon Platinum 8259	32	16	2	X	X
r5n.12xlarge	X	384.00	Intel Xeon Platinum 8259	48	24	2	X	X

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r6a.24xlarge	X	768.00	AMD EPYC 7R13	96	48	2	X	X
r6a.32xlarge	X	1024.00	AMD EPYC 7R13	128	64	2	X	X
r6a.48xlarge	X	1536.00	AMD EPYC 7R13	192	96	2	X	X
r6a.metal	X	1536.00	AMD EPYC 7R13	192	96	2	X	x
			R6g					
r6g.medium	X	8.00	AWS Graviton2 Processor	1	1	1	X	X
r6g.large	X	16.00	AWS Graviton2 Processor	2	2	1	X	X
r6g.xlarge	X	32.00	AWS Graviton2 Processor	4	4	1	X	X
r6g.2xlarge	X	64.00	AWS Graviton2 Processor	8	8	1	X	X
r6g.4xlarge	X	128.00	AWS Graviton2 Processor	16	16	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r6g.8xlarge	X	256.00	AWS Graviton2 Processor	32	32	1	X	X
r6g.12xlarge	x	384.00	AWS Graviton2 Processor	48	48	1	X	X
r6g.16xlarge	X	512.00	AWS Graviton2 Processor	64	64	1	X	X
r6g.metal	X	512.00	AWS Graviton2 Processor	64	64	1	X	X
			R6gd					
r6gd.medi um	X	8.00	AWS Graviton2 Processor	1	1	1	X	X
r6gd.large	X	16.00	AWS Graviton2 Processor	2	2	1	X	X
r6gd.xlarge	x	32.00	AWS Graviton2 Processor	4	4	1	X	X
r6gd.2xlarge	X	64.00	AWS Graviton2 Processor	8	8	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r6gd.4xlarge	X	128.00	AWS Graviton2 Processor	16	16	1	X	X
r6gd.8xlarge	X	256.00	AWS Graviton2 Processor	32	32	1	X	X
r6gd.12xl arge	X	384.00	AWS Graviton2 Processor	48	48	1	X	X
r6gd.16xl arge	X	512.00	AWS Graviton2 Processor	64	64	1	X	X
r6gd.metal	X	512.00	AWS Graviton2 Processor	64	64	1	X	X
			R6i					
r6i.large	X	16.00	Intel Xeon Ice Lake	2	1	2	X	X
r6i.xlarge	X	32.00	Intel Xeon Ice Lake	4	2	2	X	X
r6i.2xlarge	X	64.00	Intel Xeon Ice Lake	8	4	2	X	X
r6i.4xlarge	X	128.00	Intel Xeon Ice Lake	16	8	2	X	X

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r6idn.12x large	X	384.00	Intel Xeon Ice Lake	48	24	2	X	X
r6idn.16x large	X	512.00	Intel Xeon Ice Lake	64	32	2	X	X
r6idn.24x large	X	768.00	Intel Xeon Ice Lake	96	48	2	X	X
r6idn.32x large	X	1024.00	Intel Xeon Ice Lake	128	64	2	x	X
r6idn.metal	X	1024.00	Intel Xeon Ice Lake	128	64	2	x	X
			R6in					
r6in.large	X	16.00	Intel Xeon Ice Lake	2	1	2	X	x
r6in.xlarge	X	32.00	Intel Xeon Ice Lake	4	2	2	X	X
r6in.2xlarge	X	64.00	Intel Xeon Ice Lake	8	4	2	X	X
r6in.4xlarge	X	128.00	Intel Xeon Ice Lake	16	8	2	X	X
r6in.8xlarge	X	256.00	Intel Xeon Ice Lake	32	16	2	X	x
r6in.12xl arge	X	384.00	Intel Xeon Ice Lake	48	24	2	x	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r6in.16xl arge	X	512.00	Intel Xeon Ice Lake	64	32	2	X	X
r6in.24xl arge	X	768.00	Intel Xeon Ice Lake	96	48	2	X	X
r6in.32xl arge	X	1024.00	Intel Xeon Ice Lake	128	64	2	X	X
r6in.metal	X	1024.00	Intel Xeon Ice Lake	128	64	2	X	X
			R6id					
r6id.large	X	16.00	Intel Xeon Ice Lake	2	1	2	x	X
r6id.xlarge	X	32.00	Intel Xeon Ice Lake	4	2	2	x	X
r6id.2xlarge	X	64.00	Intel Xeon Ice Lake	8	4	2	X	X
r6id.4xlarge	X	128.00	Intel Xeon Ice Lake	16	8	2	X	X
r6id.8xlarge	X	256.00	Intel Xeon Ice Lake	32	16	2	X	X
r6id.12xl arge	X	384.00	Intel Xeon Ice Lake	48	24	2	X	X
r6id.16xl arge	X	512.00	Intel Xeon Ice Lake	64	32	2	x	X

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r7a.24xlarge	X	768.00	AMD EPYC 9R14	96	96	1	X	X
r7a.32xlarge	X	1024.00	AMD EPYC 9R14	128	128	1	X	X
r7a.48xlarge	X	1536.00	AMD EPYC 9R14	192	192	1	x	X
r7a.metal -48xl	X	1536.00	AMD EPYC 9R14	192	192	1	x	X
			R7g					
r7g.medium	X	8.00	AWS Graviton3 Processor	1	1	1	X	X
r7g.large	X	16.00	AWS Graviton3 Processor	2	2	1	X	X
r7g.xlarge	X	32.00	AWS Graviton3 Processor	4	4	1	X	X
r7g.2xlarge	X	64.00	AWS Graviton3 Processor	8	8	1	X	X
r7g.4xlarge	X	128.00	AWS Graviton3 Processor	16	16	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r7g.8xlarge	X	256.00	AWS Graviton3 Processor	32	32	1	X	X
r7g.12xlarge	X	384.00	AWS Graviton3 Processor	48	48	1	X	X
r7g.16xlarge	X	512.00	AWS Graviton3 Processor	64	64	1	X	X
r7g.metal	X	512.00	AWS Graviton3 Processor	64	64	1	X	X
			R7gd					
r7gd.medi um	X	8.00	AWS Graviton3 Processor	1	1	1	X	X
r7gd.large	X	16.00	AWS Graviton3 Processor	2	2	1	X	X
r7gd.xlarge	X	32.00	AWS Graviton3 Processor	4	4	1	X	X
r7gd.2xlarge	X	64.00	AWS Graviton3 Processor	8	8	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r7gd.4xlarge	X	128.00	AWS Graviton3 Processor	16	16	1	X	X
r7gd.8xlarge	X	256.00	AWS Graviton3 Processor	32	32	1	X	X
r7gd.12xl arge	X	384.00	AWS Graviton3 Processor	48	48	1	X	X
r7gd.16xl arge	X	512.00	AWS Graviton3 Processor	64	64	1	X	X
r7gd.metal	X	512.00	AWS Graviton3 Processor	64	64	1	X	X
			R7i					
r7i.large	X	16.00	Intel Xeon Sapphire Rapids	2	1	2	X	X
r7i.xlarge	X	32.00	Intel Xeon Sapphire Rapids	4	2	2	X	X
r7i.2xlarge	X	64.00	Intel Xeon Sapphire Rapids	8	4	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory	
r7i.4xlarge	X	128.00	Intel Xeon Sapphire Rapids	16	8	2	X	X	
r7i.8xlarge	x	256.00	Intel Xeon Sapphire Rapids	32	16	2	X	X	
r7i.12xlarge	X	384.00	Intel Xeon Sapphire Rapids	48	24	2	X	X	
r7i.16xlarge	X	512.00	Intel Xeon Sapphire Rapids	64	32	2	X	X	
r7i.24xlarge	X	768.00	Intel Xeon Sapphire Rapids	96	48	2	X	X	
r7i.48xlarge	X	1536.00	Intel Xeon Sapphire Rapids	192	96	2	X	X	
r7i.metal -24xl	x	768.00	Intel Xeon Sapphire Rapids	96	48	2	X	X	
r7i.metal -48xl	X	1536.0C	Intel Xeon Sapphire Rapids	192	96	2	X	X	
R7iz									

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r7iz.large	X	16.00	Intel Xeon Sapphire Rapids	2	1	2	X	X
r7iz.xlarge	X	32.00	Intel Xeon Sapphire Rapids	4	2	2	X	X
r7iz.2xlarge	X	64.00	Intel Xeon Sapphire Rapids	8	4	2	X	X
r7iz.4xlarge	X	128.00	Intel Xeon Sapphire Rapids	16	8	2	X	X
r7iz.8xlarge	X	256.00	Intel Xeon Sapphire Rapids	32	16	2	X	X
r7iz.12xl arge	X	384.00	Intel Xeon Sapphire Rapids	48	24	2	X	X
r7iz.16xl arge	X	512.00	Intel Xeon Sapphire Rapids	64	32	2	X	X
r7iz.32xl arge	X	1024.00	Intel Xeon Sapphire Rapids	128	64	2	X	X
r7iz.meta l-16xl	X	512.00	Intel Xeon Sapphire Rapids	64	32	2	X	X

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
r8g.16xlarge	X	512.00	AWS Graviton4 Processor	64	64	1	X	X
r8g.24xlarge	X	768.00	AWS Graviton4 Processor	96	96	1	X	X
r8g.48xlarge	X	1536.0C	AWS Graviton4 Processor	192	192	1	X	X
r8g.metal -24xl	X	768.00	AWS Graviton4 Processor	96	96	1	X	X
r8g.metal -48xl	X	1536.0C	AWS Graviton4 Processor	192	192	1	X	X
			U-3tb	1				
u-3tb1.56 xlarge	X	3072.00	Intel Xeon Platinum 8176M	224	112	2	X	X
			U-6tb	1				
u-6tb1.56 xlarge	X	6144.00	Intel Xeon Platinum 8176M	224	224	1	X	X
u-6tb1.11 2xlarge	X	6144.00	Intel Xeon Platinum 8176M	448	224	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelera or memory		
u-6tb1.me tal	x	6144.00	Intel Xeon Platinum 8176M	448	224	2	X	x		
U-9tb1										
u-9tb1.11 2xlarge	x	9216.00	Intel Xeon Platinum 8176M	448	224	2	X	x		
u-9tb1.me tal	x	9216.00	Intel Xeon Platinum 8176M	448	224	2	X	x		
U-12tb1										
u-12tb1.1 12xlarge	x	12288.0	Intel Xeon Platinum 8176M	448	224	2	X	x		
u-12tb1.m etal	X	12288.C	Intel Xeon Platinum 8176M	448	224	2	X	X		
			U-18tb	1						
u-18tb1.1 12xlarge	X	18432.0	Intel Xeon Platinum 8280L	448	224	2	X	X		
u-18tb1.m etal	X	18432.0	Intel Xeon Platinum 8280L	448	224	2	X	X		
U-24tb1										

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Acceleration or memory	
u-24tb1.1 12xlarge	X	24576.0	Intel Xeon Platinum 8280L	448	224	2	X	X	
u-24tb1.m etal	X	24576.0	Intel Xeon Platinum 8280L	448	224	2	X	X	
			U7i-12	tb					
u7i-12tb. 224xlarge	X	12288.C	Intel Xeon Sapphire Rapids	896	448	2	X	X	
			U7in-16	tb					
u7in-16tb .224xlarge	X	16384.C	Intel Xeon Sapphire Rapids	896	448	2	X	X	
			U7in-24	tb					
u7in-24tb .224xlarge	X	24576.0	Intel Xeon Sapphire Rapids	896	448	2	X	X	
			U7in-32	tb					
u7in-32tb .224xlarge	X	32768.C	Intel Xeon Sapphire Rapids	896	448	2	X	X	
X1									

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
x1.16xlarge	X	976.00	Intel Xeon E7 8880 v3	64	32	2	x	X
x1.32xlarge	X	1952.00	Intel Xeon E7 8880 v3	128	64	2	x	X
			X2gd					
x2gd.medi um	X	16.00	AWS Graviton2 Processor	1	1	1	X	X
x2gd.large	X	32.00	AWS Graviton2 Processor	2	2	1	X	X
x2gd.xlarge	X	64.00	AWS Graviton2 Processor	4	4	1	X	X
x2gd.2xla rge	X	128.00	AWS Graviton2 Processor	8	8	1	X	X
x2gd.4xla rge	X	256.00	AWS Graviton2 Processor	16	16	1	X	X
x2gd.8xla rge	X	512.00	AWS Graviton2 Processor	32	32	1	X	X
x2gd.12xl arge	X	768.00	AWS Graviton2 Processor	48	48	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Acceleration or memory
x2gd.16xl arge	X	1024.00	AWS Graviton2 Processor	64	64	1	X	X
x2gd.metal	X	1024.00	AWS Graviton2 Processor	64	64	1	X	X
			X2idr	1				
x2idn.16x large	X	1024.00	Intel Xeon Ice Lake	64	32	2	x	X
x2idn.24x large	X	1536.00	Intel Xeon Ice Lake	96	48	2	X	X
x2idn.32x large	x	2048.00	Intel Xeon Ice Lake	128	64	2	X	X
x2idn.metal	X	2048.00	Intel Xeon Ice Lake	128	64	2	X	X
			X2ied	n				
x2iedn.xl arge	X	128.00	Intel Xeon Ice Lake	4	2	2	X	X
x2iedn.2x large	X	256.00	Intel Xeon Ice Lake	8	4	2	X	X
x2iedn.4x large	X	512.00	Intel Xeon Ice Lake	16	8	2	X	X
x2iedn.8x large	X	1024.00	Intel Xeon Ice Lake	32	16	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
x2iedn.16 xlarge	X	2048.00	Intel Xeon Ice Lake	64	32	2	X	X
x2iedn.24 xlarge	X	3072.00	Intel Xeon Ice Lake	96	48	2	X	X
x2iedn.32 xlarge	X	4096.00	Intel Xeon Ice Lake	128	64	2	X	X
x2iedn.me tal	X	4096.00	Intel Xeon Ice Lake	128	64	2	X	X
			X2iezi	n				
x2iezn.2x large	X	256.00	Intel Xeon Platinum 8252	8	4	2	X	X
x2iezn.4x large	X	512.00	Intel Xeon Platinum 8252	16	8	2	X	X
x2iezn.6x large	X	768.00	Intel Xeon Platinum 8252	24	12	2	X	X
x2iezn.8x large	X	1024.00	Intel Xeon Platinum 8252	32	16	2	X	X
x2iezn.12 xlarge	X	1536.00	Intel Xeon Platinum 8252	48	24	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
x2iezn.metal	X	1536.0C	Intel Xeon Platinum 8252	48	24	2	X	X
			X1e					
x1e.xlarge	X	122.00	Intel Haswell E7 8880v3	4	2	2	X	X
x1e.2xlarge	X	244.00	Intel Haswell E7 8880v3	8	4	2	X	X
x1e.4xlarge	X	488.00	Intel Haswell E7 8880v3	16	8	2	x	X
x1e.8xlarge	X	976.00	Intel Haswell E7 8880v3	32	16	2	x	x
x1e.16xlarge	X	1952.00	Intel Haswell E7 8880v3	64	32	2	X	X
x1e.32xlarge	X	3904.00	Intel Haswell E7 8880v3	128	64	2	X	X
			z1d					
z1d.large	x	16.00	Intel Xeon Platinum 8151	2	1	2	X	X
z1d.xlarge	X	32.00	Intel Xeon Platinum 8151	4	2	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
z1d.2xlarge	X	64.00	Intel Xeon Platinum 8151	8	4	2	X	X
z1d.3xlarge	X	96.00	Intel Xeon Platinum 8151	12	6	2	X	X
z1d.6xlarge	X	192.00	Intel Xeon Platinum 8151	24	12	2	X	X
z1d.12xla rge	X	384.00	Intel Xeon Platinum 8151	48	24	2	X	X
z1d.metal	X	384.00	Intel Xeon Platinum 8151	48	24	2	X	X

## **Network specifications**

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
			ı	R5				
r5.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
r5.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
r5.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
r5.4xlarge <sup>1</sup>	5.0 / 10.0	X	✓	x	1	8	30	✓
r5.8xlarge	10 Gigabit	X	✓	x	1	8	30	✓
r5.12xlarge	12 Gigabit	X	✓	x	1	8	30	✓
r5.16xlarge	20 Gigabit	x	✓	X	1	15	50	✓
r5.24xlarge	25 Gigabit	X	✓	X	1	15	50	✓
r5.metal	25 Gigabit	X	✓	X	1	15	50	✓
			R	15a				
r5a.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
r5a.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
r5a.2xlarge <sup>1</sup>	2.5 / 10.0	x	✓	X	1	4	15	✓
r5a.4xlarge <sup>1</sup>	5.0 / 10.0	X	✓	X	1	8	30	✓
r5a.8xlarge <sup>1</sup>	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	✓
			R!	5ad				
r5ad.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
r5ad.xlarge <sup>1</sup>	1.25 / 10.0	x	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
r5ad.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
r5ad.4xlarge <sup>1</sup>	5.0 / 10.0	X	✓	X	1	8	30	✓
r5ad.8xlarge <sup>1</sup>	7.5 / 10.0	X	✓	X	1	8	30	✓
r5ad.12xlarge	10 Gigabit	X	✓	X	1	8	30	✓
r5ad.16xlarge	12 Gigabit	X	✓	X	1	15	50	✓
r5ad.24xlarge	20 Gigabit	X	✓	X	1	15	50	✓
			R	5b				
r5b.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓
r5b.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
r5b.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
r5b.4xlarge <sup>1</sup>	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	✓
			R	5d				
r5d.large <sup>1</sup>	0.75 / 10.0	X	✓	x	1	3	10	✓
r5d.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6			
r5d.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓			
r5d.4xlarge <sup>1</sup>	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 <sup>1</sup>	2.1 / 25.0	X	✓	x	1	3	10	✓			
r5dn.xlarge <sup>1</sup>	4.1 / 25.0	x	✓	x	1	4	15	✓			
r5dn.2xlarge <sup>1</sup>	8.125 / 25.0	X	✓	x	1	4	15	✓			
r5dn.4xlarge <sup>1</sup>	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	✓			
			R	25n							
r5n.large <sup>1</sup>	2.1 / 25.0	X	✓	x	1	3	10	✓			

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
r5n.xlarge <sup>1</sup>	4.1 / 25.0	X	✓	X	1	4	15	✓
r5n.2xlarge <sup>1</sup>	8.125 / 25.0	X	✓	X	1	4	15	✓
r5n.4xlarge <sup>1</sup>	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	✓
			R	6a				
r6a.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
r6a.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
r6a.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
r6a.4xlarge <sup>1</sup>	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	✓	✓	1	8	30	✓
r6a.16xlarge	25 Gigabit	X	✓	✓	1	15	50	✓
r6a.24xlarge	37.5 Gigabit	X	✓	✓	1	15	50	✓
r6a.32xlarge	50 Gigabit	X	✓	✓	1	15	50	✓
r6a.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6				
r6a.metal	50 Gigabit	✓	✓	✓	1	15	50	✓				
R6g												
r6g.medium <sup>1</sup>	0.5 / 10.0	X	✓	X	1	2	4	✓				
r6g.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓				
r6g.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓				
r6g.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	x	1	4	15	✓				
r6g.4xlarge <sup>1</sup>	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 <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓				
r6gd.xlarge <sup>1</sup>	1.25 / 10.0	x	✓	x	1	4	15	✓				
r6gd.2xlarge <sup>1</sup>	2.5 / 10.0	x	✓	x	1	4	15	✓				
r6gd.4xlarge <sup>1</sup>	5.0 / 10.0	X	✓	x	1	8	30	✓				
r6gd.8xlarge	12 Gigabit	X	✓	x	1	8	30	✓				

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6			
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 <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓			
r6i.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	x	1	4	15	✓			
r6i.2xlarge <sup>1</sup>	3.125 / 12.5	x	✓	x	1	4	15	✓			
r6i.4xlarge <sup>1</sup>	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	✓			
r6i.metal	50 Gigabit	✓	✓	✓	1	15	50	✓			
R6idn											
r6idn.large <sup>1</sup>	3.125 / 25.0	X	✓	x	1	3	10	✓			
r6idn.xlarge <sup>1</sup>	6.25 / 30.0	x	✓	x	1	4	15	✓			
r6idn.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 interface s	IP addresses per interface	IPv6
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	16	50	✓
r6idn.metal	200 Gigabit	✓	✓	X	2	16	50	✓
			R	6in				
r6in.large <sup>1</sup>	3.125 / 25.0	X	✓	X	1	3	10	✓
r6in.xlarge <sup>1</sup>	6.25 / 30.0	X	✓	X	1	4	15	✓
r6in.2xlarge <sup>1</sup>	12.5 / 40.0	X	✓	X	1	4	15	✓
r6in.4xlarge <sup>1</sup>	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	16	50	✓
r6in.metal	200 Gigabit	✓	✓	X	2	16	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
			R	6id				
r6id.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
r6id.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	x	1	4	15	✓
r6id.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	x	1	4	15	✓
r6id.4xlarge <sup>1</sup>	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	✓
r6id.metal	50 Gigabit	✓	✓	✓	1	15	50	✓
			R	.7a				
r7a.medium <sup>1</sup>	0.39 / 12.5	X	✓	x	1	2	4	✓
r7a.large <sup>1</sup>	0.781 / 12.5	X	✓	x	1	3	10	✓
r7a.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	x	1	4	15	✓
r7a.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	x	1	4	15	✓
r7a.4xlarge <sup>1</sup>	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
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	✓
			R	.7g				
r7g.medium <sup>1</sup>	0.52 / 12.5	X	✓	X	1	2	4	✓
r7g.large <sup>1</sup>	0.937 / 12.5	X	✓	X	1	3	10	✓
r7g.xlarge <sup>1</sup>	1.876 / 12.5	X	✓	X	1	4	15	✓
r7g.2xlarge <sup>1</sup>	3.75 / 15.0	X	✓	X	1	4	15	✓
r7g.4xlarge <sup>1</sup>	7.5 / 15.0	X	✓	X	1	8	30	✓
r7g.8xlarge	15 Gigabit	X	✓	X	1	8	30	✓
r7g.12xlarge	22.5 Gigabit	X	✓	✓	1	8	30	✓
r7g.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓
r7g.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
			R	7gd				
r7gd.medium 1	0.52 / 12.5	X	✓	X	1	2	4	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
r7gd.large <sup>1</sup>	0.937 / 12.5	X	✓	X	1	3	10	✓
r7gd.xlarge <sup>1</sup>	1.876 / 12.5	X	✓	X	1	4	15	✓
r7gd.2xlarge <sup>1</sup>	3.75 / 15.0	X	✓	x	1	4	15	✓
r7gd.4xlarge <sup>1</sup>	7.5 / 15.0	X	✓	X	1	8	30	✓
r7gd.8xlarge	15 Gigabit	X	✓	X	1	8	30	✓
r7gd.12xlarge	22.5 Gigabit	X	✓	✓	1	8	30	✓
r7gd.16xlarge	30 Gigabit	✓	✓	✓	1	15	50	✓
r7gd.metal	30 Gigabit	✓	✓	✓	1	15	50	✓
			F	R7i				
r7i.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
r7i.xlarge <sup>1</sup>	1.562 / 12.5	X	✓	X	1	4	15	✓
r7i.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
r7i.4xlarge <sup>1</sup>	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	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
r7i.metal-48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
			R	7iz				
r7iz.large <sup>1</sup>	0.781 / 12.5	X	✓	X	1	3	10	✓
r7iz.xlarge <sup>1</sup>	1.562 / 12.5	x	✓	X	1	4	15	✓
r7iz.2xlarge <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓
r7iz.4xlarge <sup>1</sup>	6.25 / 12.5	X	✓	X	1	8	30	✓
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	✓
			R	18g				
r8g.medium <sup>1</sup>	0.52 / 12.5	X	✓	X	1	2	4	✓
r8g.large <sup>1</sup>	0.937 / 12.5	X	✓	X	1	3	10	✓
r8g.xlarge <sup>1</sup>	1.876 / 12.5	X	✓	X	1	4	15	✓
r8g.2xlarge <sup>1</sup>	3.75 / 15.0	X	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
r8g.4xlarge <sup>1</sup>	7.5 / 15.0	X	✓	X	1	8	30	✓
r8g.8xlarge	15 Gigabit	X	✓	X	1	8	30	✓
r8g.12xlarge	22.5 Gigabit	X	✓	✓	1	8	30	✓
r8g.16xlarge	30 Gigabit	X	✓	✓	1	15	50	✓
r8g.24xlarge	40 Gigabit	✓	✓	✓	1	15	50	✓
r8g.48xlarge	50 Gigabit	✓	✓	✓	1	15	50	✓
r8g.metal -24xl	40 Gigabit	✓	✓	✓	1	15	50	✓
r8g.metal -48xl	50 Gigabit	✓	✓	✓	1	15	50	✓
			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								

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
u-9tb1.11 2xlarge	100 Gigabit	X	✓	X	1	15	50	✓
u-9tb1.metal	100	X	✓	X	1	5	30	✓
			U-1	2tb1				
u-12tb1.1 12xlarge	100 Gigabit	X	✓	X	1	15	50	✓
u-12tb1.metal	100	X	✓	X	1	5	30	✓
			U-1	8tb1				
u-18tb1.1 12xlarge	100 Gigabit	X	✓	X	1	15	50	✓
u-18tb1.metal	100 Gigabit	X	✓	X	1	15	50	✓
			U-2	24tb1				
u-24tb1.1 12xlarge	100 Gigabit	X	✓	X	1	15	50	✓
u-24tb1.metal	100 Gigabit	X	✓	X	1	15	50	✓
			U7i	-12tb				
u7i-12tb. 224xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓
			U7ir	ı-16tb				
u7in-16tb .224xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6	
U7in-24tb									
u7in-24tb .224xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓	
			U7ir	ı-32tb					
u7in-32tb .224xlarge	200 Gigabit	✓	✓	✓	2	16	50	✓	
			2	<b>K1</b>					
x1.16xlarge	10 Gigabit	x	✓	x	1	8	30	✓	
x1.32xlarge	25 Gigabit	X	✓	X	1	8	30	✓	
			X	2gd					
x2gd.medium 1	0.5 / 10.0	X	✓	X	1	2	4	✓	
x2gd.large <sup>1</sup>	0.75 / 10.0	X	✓	x	1	3	10	✓	
x2gd.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓	
x2gd.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓	
x2gd.4xlarge <sup>1</sup>	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	✓	

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
			X2	2idn				
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	✓
			X2	iedn				
x2iedn.xlarge 1	1.875 / 25.0	X	✓	X	1	4	15	✓
x2iedn.2x large <sup>1</sup>	5.0 / 25.0	X	✓	X	1	4	15	✓
x2iedn.4x large <sup>1</sup>	12.5 / 25.0	X	✓	X	1	8	30	✓
x2iedn.8x large	25 Gigabit	X	✓	✓	1	8	30	✓
x2iedn.16 xlarge	50 Gigabit	X	✓	✓	1	15	50	✓
x2iedn.24 xlarge	75 Gigabit	X	✓	✓	1	15	50	✓
x2iedn.32 xlarge	100 Gigabit	✓	✓	✓	1	15	50	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
x2iedn.metal	100 Gigabit	✓	✓	✓	1	15	50	✓
			X2	iezn				
x2iezn.2xlarge 1	12.5 / 25.0	X	✓	X	1	4	15	✓
x2iezn.4xlarge	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	✓
x2iezn.12 xlarge	100 Gigabit	✓	✓	X	1	15	50	✓
x2iezn.metal	100 Gigabit	✓	✓	X	1	15	50	✓
			X	(1e				
x1e.xlarge <sup>1</sup>	0.625 / 10.0	X	✓	X	1	3	10	✓
x1e.2xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
x1e.4xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
x1e.8xlarge <sup>1</sup>	5.0 / 10.0	X	✓	X	1	4	15	✓
x1e.16xlarge	10 Gigabit	X	✓	X	1	8	30	✓
x1e.32xlarge	25 Gigabit	X	✓	X	1	8	30	✓
z1d								
z1d.large <sup>1</sup>	0.75 / 10.0	X	✓	X	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
z1d.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓
z1d.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
z1d.3xlarge <sup>1</sup>	5.0 / 10.0	X	✓	X	1	8	30	✓
z1d.6xlarge	12 Gigabit	X	✓	X	1	8	30	✓
z1d.12xlarge	25 Gigabit	X	✓	X	1	15	50	✓
z1d.metal	25 Gigabit	X	✓	X	1	15	50	✓

### Note

<sup>1</sup> 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 <u>instance</u> 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 mightonly provide network performance of 25 Gbps. To ensure that instances launched before March 12, 2020 have a network performance of 100 Gbps, contact your account team to upgrade your instance at no additional cost.

## **Amazon EBS specifications**

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

#### Important

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

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization 2
		R	5		
r5.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
r5.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 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
r5.2xlarge <sup>1</sup>	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	default
r5.4xlarge	4750.00	593.75	18750.00	✓	default
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
		R!	5a		
r5a.large <sup>1</sup>	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	default
r5a.xlarge <sup>1</sup>	1085.00 / 2880.00	135.62 / 360.00	6000.00 / 16000.00	✓	default
r5a.2xlarge <sup>1</sup>	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

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	ad		
r5ad.large <sup>1</sup>	650.00 / 2880.00	81.25 / 360.00	3600.00 / 16000.00	✓	default
r5ad.xlarge <sup>1</sup>	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.12xl arge	6780.00	847.50	30000.00	✓	default
r5ad.16xl arge	9500.00	1187.50	40000.00	✓	default
r5ad.24xl arge	13570.00	1696.25	60000.00	✓	default
		R!	5b		
r5b.large <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	5417.00 / 43333.00	✓	default
r5b.xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	10833.00 / 43333.00	✓	default
r5b.2xlarge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	21667.00 / 43333.00	✓	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.4xlarge	10000.00	1250.00	43333.00	✓	default
r5b.8xlarge	20000.00	2500.00	86667.00	✓	default
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
		R	5d		
r5d.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
r5d.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
r5d.2xlarge <sup>1</sup>	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

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	dn		
r5dn.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
r5dn.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 18750.00	✓	default
r5dn.2xlarge	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.12xl arge	9500.00	1187.50	40000.00	✓	default
r5dn.16xl arge	13600.00	1700.00	60000.00	✓	default
r5dn.24xl arge	19000.00	2375.00	80000.00	✓	default
r5dn.metal	19000.00	2375.00	80000.00	✓	default
		R	5n		
r5n.large <sup>1</sup>	650.00 / 4750.00	81.25 / 593.75	3600.00 / 18750.00	✓	default
r5n.xlarge <sup>1</sup>	1150.00 / 4750.00	143.75 / 593.75	6000.00 / 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
r5n.2xlarge <sup>1</sup>	2300.00 / 4750.00	287.50 / 593.75	12000.00 / 18750.00	✓	default
r5n.4xlarge	4750.00	593.75	18750.00	✓	default
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
		Re	5a		
r6a.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r6a.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r6a.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r6a.4xlarge <sup>1</sup>	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

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.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
r6a.metal	40000.00	5000.00	240000.00	✓	default
		Re	5g		
r6g.medium 1	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
r6g.large <sup>1</sup>	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
r6g.xlarge <sup>1</sup>	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
r6g.2xlarge <sup>1</sup>	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
		R6	gd		

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.medium	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
r6gd.large <sup>1</sup>	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
r6gd.xlarge <sup>1</sup>	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
r6gd.2xlarge	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.12xl arge	14250.00	1781.25	50000.00	✓	default
r6gd.16xl arge	19000.00	2375.00	80000.00	✓	default
r6gd.metal	19000.00	2375.00	80000.00	✓	default
		R	6i		
r6i.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r6i.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r6i.2xlarge <sup>1</sup>	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
r6i.4xlarge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
r6i.8xlarge	10000.00	1250.00	40000.00	✓	default
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
		R6i	idn		
r6idn.large <sup>1</sup>	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	default
r6idn.xlarge <sup>1</sup>	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.12x large	37500.00	4687.50	150000.00	✓	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.16x large	50000.00	6250.00	200000.00	✓	default
r6idn.24x large	75000.00	9375.00	300000.00	✓	default
r6idn.32x large	100000.00	12500.00	400000.00	✓	default
r6idn.metal	100000.00	12500.00	400000.00	✓	default
		R6	iin		
r6in.large <sup>1</sup>	1562.00 / 25000.00	195.31 / 3125.00	6250.00 / 100000.00	✓	default
r6in.xlarge <sup>1</sup>	3125.00 / 25000.00	390.62 / 3125.00	12500.00 / 100000.00	✓	default
r6in.2xlarge <sup>1</sup>	6250.00 / 25000.00	781.25 / 3125.00	25000.00 / 100000.00	✓	default
r6in.4xlarge <sup>1</sup>	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

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
r6in.metal	100000.00	12500.00	400000.00	✓	default
		Re	Sid		
r6id.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r6id.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r6id.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r6id.4xlarge <sup>1</sup>	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
		R	7a		
r7a.medium <sup>1</sup>	325.00 / 10000.00	40.62 / 1250.00	2500.00 / 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.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r7a.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r7a.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r7a.4xlarge <sup>1</sup>	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
		R	7g		
r <b>7g.medium</b> 1	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
r7g.large <sup>1</sup>	630.00 / 10000.00	78.75 / 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
r7g.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r7g.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r7g.4xlarge <sup>1</sup>	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
		R7	gd		
r <b>7</b> gd.medium	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
r7gd.large <sup>1</sup>	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
r7gd.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r7gd.2xlarge	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

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.8xlarge	10000.00	1250.00	40000.00	✓	default
r7gd.12xl arge	15000.00	1875.00	60000.00	✓	default
r7gd.16xl arge	20000.00	2500.00	80000.00	✓	default
r7gd.metal	20000.00	2500.00	80000.00	✓	default
		R	7i		
r7i.large <sup>1</sup>	650.00 / 10000.00	81.25 / 1250.00	3600.00 / 40000.00	✓	default
r7i.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r7i.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r7i.4xlarge <sup>1</sup>	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

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
r7i.metal -24xl	30000.00	3750.00	120000.00	✓	default
r7i.metal -48xl	40000.00	5000.00	240000.00	✓	default
		R7	7iz		
r7iz.large <sup>1</sup>	792.00 / 10000.00	99.00 / 1250.00	3600.00 / 40000.00	✓	default
r7iz.xlarge <sup>1</sup>	1584.00 / 10000.00	198.00 / 1250.00	6667.00 / 40000.00	✓	default
r7iz.2xlarge <sup>1</sup>	3168.00 / 10000.00	396.00 / 1250.00	13333.00 / 40000.00	✓	default
r7iz.4xlarge <sup>1</sup>	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

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
		R	Зд		
r8g.medium 1	315.00 / 10000.00	39.38 / 1250.00	2500.00 / 40000.00	✓	default
r8g.large <sup>1</sup>	630.00 / 10000.00	78.75 / 1250.00	3600.00 / 40000.00	✓	default
r8g.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	6000.00 / 40000.00	✓	default
r8g.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	12000.00 / 40000.00	✓	default
r8g.4xlarge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
r8g.8xlarge	10000.00	1250.00	40000.00	✓	default
r8g.12xlarge	15000.00	1875.00	60000.00	✓	default
r8g.16xlarge	20000.00	2500.00	80000.00	✓	default
r8g.24xlarge	30000.00	3750.00	120000.00	✓	default
r8g.48xlarge	40000.00	5000.00	240000.00	✓	default
r8g.metal -24xl	30000.00	3750.00	120000.00	✓	default
r8g.metal -48xl	40000.00	5000.00	240000.00	✓	default
		U-3	tb1		

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-3tb1.56 xlarge	19000.00	2375.00	80000.00	✓	default
		U-6	tb1		
u-6tb1.56 xlarge	38000.00	4750.00	160000.00	✓	default
u-6tb1.11 2xlarge	38000.00	4750.00	160000.00	✓	default
u-6tb1.metal	38000.00	4750.00	160000.00	✓	default
		U-9	tb1		
u-9tb1.11 2xlarge	38000.00	4750.00	160000.00	✓	default
u-9tb1.metal	38000.00	4750.00	160000.00	✓	default
		U-12	2tb1		
u-12tb1.1 12xlarge	38000.00	4750.00	160000.00	✓	default
u-12tb1.m etal	38000.00	4750.00	160000.00	✓	default
		U-18	8tb1		
u-18tb1.1 12xlarge	38000.00	4750.00	160000.00	✓	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
u-18tb1.m etal	38000.00	4750.00	160000.00	✓	default
		U-24	4tb1		
u-24tb1.1 12xlarge	38000.00	4750.00	160000.00	✓	default
u-24tb1.m etal	38000.00	4750.00	160000.00	✓	default
		U7i-	12tb		
u7i-12tb. 224xlarge	60000.00	7500.00	420000.00	✓	default
		U7in-	-16tb		
u7in-16tb .224xlarge	100000.00	12500.00	420000.00	✓	default
		U7in-	-24tb		
u7in-24tb .224xlarge	100000.00	12500.00	420000.00	✓	default
		U7in-	-32tb		
u7in-32tb .224xlarge	100000.00	12500.00	420000.00	✓	default
		x	1		
x1.16xlarge	7000.00	875.00	40000.00	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
x1.32xlarge	14000.00	1750.00	80000.00	X	default
		X2	gd		
x2gd.medi um <sup>1</sup>	315.00 / 4750.00	39.38 / 593.75	2500.00 / 20000.00	✓	default
x2gd.large <sup>1</sup>	630.00 / 4750.00	78.75 / 593.75	3600.00 / 20000.00	✓	default
x2gd.xlarge <sup>1</sup>	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
x2gd.2xlarge	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.12xl arge	14250.00	1781.25	60000.00	✓	default
x2gd.16xl arge	19000.00	2375.00	80000.00	✓	default
x2gd.metal	19000.00	2375.00	80000.00	✓	default
		X2	idn		
x2idn.16x large	40000.00	5000.00	173333.00	✓	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
x2idn.24x large	60000.00	7500.00	260000.00	✓	default
x2idn.32x large	80000.00	10000.00	260000.00	✓	default
x2idn.metal	80000.00	10000.00	260000.00	✓	default
		X2i	edn		
x2iedn.xlarge 1	2500.00 / 20000.00	312.50 / 2500.00	8125.00 / 65000.00	✓	default
x2iedn.2x large <sup>1</sup>	5000.00 / 20000.00	625.00 / 2500.00	16250.00 / 65000.00	✓	default
x2iedn.4x large <sup>1</sup>	10000.00 / 20000.00	1250.00 / 2500.00	32500.00 / 65000.00	✓	default
x2iedn.8x large	20000.00	2500.00	65000.00	✓	default
x2iedn.16 xlarge	40000.00	5000.00	130000.00	✓	default
x2iedn.24 xlarge	60000.00	7500.00	195000.00	✓	default
x2iedn.32 xlarge	80000.00	10000.00	260000.00	✓	default
x2iedn.metal	80000.00	10000.00	260000.00	✓	default
		X2i	ezn		

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
x2iezn.2x large	3170.00	396.25	13333.00	✓	default
x2iezn.4x large	4750.00	593.75	20000.00	✓	default
x2iezn.6x large	9500.00	1187.50	40000.00	✓	default
x2iezn.8x large	12000.00	1500.00	55000.00	✓	default
x2iezn.12 xlarge	19000.00	2375.00	80000.00	✓	default
x2iezn.metal	19000.00	2375.00	80000.00	✓	default
		X	1e		
x1e.xlarge	500.00	62.50	3700.00	X	default
x1e.2xlarge	1000.00	125.00	7400.00	X	default
x1e.4xlarge	1750.00	218.75	10000.00	X	default
x1e.8xlarge	3500.00	437.50	20000.00	X	default
x1e.16xlarge	7000.00	875.00	40000.00	X	default
x1e.32xlarge	14000.00	1750.00	80000.00	X	default
		z1	ld		

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
z1d.large <sup>1</sup>	800.00 / 3170.00	100.00 / 396.25	3333.00 / 13333.00	<b>√</b>	default
z1d.xlarge <sup>1</sup>	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

# **Instance store specifications**

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

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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 type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
		R5	ad		
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		✓
		R!	5 <b>d</b>		
r5d.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓
r5d.xlarge	1 x 150 GB	NVMe SSD	59,000 / 29,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		R5	dn		
r5dn.large	1 x 75 GB	NVMe SSD	29,000 / 14,500		✓
r5dn.xlarge	1 x 150 GB	NVMe SSD	58,000 / 29,000		✓
r5dn.2xlarge	1 x 300 GB	NVMe SSD	116,000 / 58,000		✓
r5dn.4xlarge	2 x 300 GB	NVMe SSD	232,000 / 116,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		R6	gd		
r6gd.medium	1 x 59 GB	NVMe SSD	13,438 / 5,625		✓
r6gd.large	1 x 118 GB	NVMe SSD	26,875 / 11,250		✓
r6gd.xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓
r6gd.2xlarge	1 x 474 GB	NVMe SSD	107,500 / 45,000		✓
r6gd.4xlarge	1 x 950 GB	NVMe SSD	215,000 / 90,000		✓
r6gd.8xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		R6	idn		
r6idn.large	1 x 118 GB	NVMe SSD	33,542 / 16,771		✓
r6idn.xlarge	1 x 237 GB	NVMe SSD	67,083 / 33,542		✓
r6idn.2xlarge	1 x 474 GB	NVMe SSD	134,167 / 67,084		✓
r6idn.4xlarge	1 x 950 GB	NVMe SSD	268,333 / 134,167		✓
r6idn.8xlarge	1 x 1900 GB	NVMe SSD	536,666 / 268,334		✓
r6idn.12xlarge	2 x 1425 GB	NVMe SSD	804,998 / 402,500		✓
r6idn.16xlarge	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
r6idn.24xlarge	4 x 1425 GB	NVMe SSD	1,609,996 / 805,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		Re	Sid		
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		✓
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		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
r6id.metal	4 x 1900 GB	NVMe SSD	2,146,664 / 1,073,336		✓
		R7	gd		
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		✓
r7gd.metal	2 x 1900 GB	NVMe SSD	1,073,332 / 536,668		✓
		X	1		
x1.16xlarge	1 x 1920 GB	SSD		✓	

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
x1.32xlarge	2 x 1920 GB	SSD		✓	
		X2	gd		
x2gd.medium	1 x 59 GB	NVMe SSD	13,438 / 5,625		✓
x2gd.large	1 x 118 GB	NVMe SSD	26,875 / 11,250		✓
x2gd.xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓
x2gd.2xlarge	1 x 475 GB	NVMe SSD	107,500 / 45,000		✓
x2gd.4xlarge	1 x 950 GB	NVMe SSD	215,000 / 90,000		✓
x2gd.8xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓
x2gd.12xlarge	2 x 1425 GB	NVMe SSD	645,000 / 270,000		✓
x2gd.16xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
x2gd.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
		Х2	idn		
x2idn.16xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		X2i	edn		
x2iedn.xlarge	1 x 118 GB	NVMe SSD	26,875 / 11,250		✓
x2iedn.2xlarge	1 x 237 GB	NVMe SSD	53,750 / 22,500		✓
x2iedn.4xlarge	1 x 475 GB	NVMe SSD	107,500 / 45,000		✓
x2iedn.8xlarge	1 x 950 GB	NVMe SSD	215,000 / 90,000		✓
x2iedn.16xlarge	1 x 1900 GB	NVMe SSD	430,000 / 180,000		✓
x2iedn.24xlarge	2 x 1425 GB	NVMe SSD	645,000 / 270,000		✓
x2iedn.32xlarge	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
x2iedn.metal	2 x 1900 GB	NVMe SSD	860,000 / 360,000		✓
		X	1e		

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓	
		z	ld		
z1d.large	1 x 75 GB	NVMe SSD	30,000 / 15,000		✓
z1d.xlarge	1 x 150 GB	NVMe SSD	59,000 / 29,000		✓
z1d.2xlarge	1 x 300 GB	NVMe SSD	117,000 / 57,000		✓
z1d.3xlarge	1 x 450 GB	NVMe SSD	175,000 / 75,000		✓
z1d.6xlarge	1 x 900 GB	NVMe SSD	350,000 / 170,000		✓
z1d.12xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓
z1d.metal	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓

### **Security specifications**

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			R5			
r5.large	<b>√</b>	Instance store not supported	X	x	✓	X
r5.xlarge	<b>√</b>	Instance store not supported	X	X	✓	✓
r5.2xlarge	<b>√</b>	Instance store not supported	X	x	✓	✓
r5.4xlarge	✓	Instance store not supported	X	X	✓	✓
r5.8xlarge	✓	Instance store not supported	X	X	✓	✓
r5.12xlarge	✓	Instance store not supported	X	x	✓	✓

<sup>&</sup>lt;sup>1</sup> Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see Optimize disk performance for instance store volumes.

<sup>&</sup>lt;sup>2</sup> For more information, see <u>Instance store volume TRIM support</u>.

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✓
r5a.2xlarge	✓	Instance store not supported	X	X	✓	✓
r5a.4xlarge	✓	Instance store not supported	X	X	✓	✓
r5a.8xlarge	<b>√</b>	Instance store not supported	X	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5a.12xlarge	✓	Instance store not supported	X	x	✓	✓
r5a.16xlarge	✓	Instance store not supported	x	x	✓	✓
r5a.24xlarge	✓	Instance store not supported	X	X	✓	✓
		F	R5ad			
r5ad.large	✓	✓	X	X	✓	x
r5ad.xlarge	✓	✓	X	x	✓	✓
r5ad.2xlarge	✓	✓	x	x	✓	✓
r5ad.4xlarge	✓	✓	x	x	✓	✓
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	<b>√</b>	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✓
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			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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
		ı	R5dn			
r5dn.large	✓	✓	✓	x	✓	x
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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			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	✓	✓
r5n.8xlarge	✓	Instance store not supported	✓	x	✓	✓
r5n.12xlarge	✓	Instance store not supported	✓	x	✓	✓
r5n.16xlarge	✓	Instance store not supported	✓	x	✓	✓
r5n.24xlarge	✓	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r5n.metal	✓	Instance store not supported	✓	X	X	X
			R6a			
r6a.large	✓	Instance store not supported	✓	✓	✓	X
r6a.xlarge	✓	Instance store not supported	✓	✓	✓	✓
r6a.2xlarge	✓	Instance store not supported	✓	✓	✓	✓
r6a.4xlarge	✓	Instance store not supported	✓	✓	✓	✓
r6a.8xlarge	✓	Instance store not supported	✓	X	✓	✓
r6a.12xlarge	✓	Instance store not supported	✓	x	✓	✓
r6a.16xlarge	✓	Instance store not supported	✓	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6a.24xlarge	✓	Instance store not supported	✓	X	✓	✓
r6a.32xlarge	✓	Instance store not supported	✓	x	✓	✓
r6a.48xlarge	✓	Instance store not supported	✓	X	✓	✓
r6a.metal	✓	Instance store not supported	✓	x	x	X
			R6g			
r6g.medium	<b>√</b>	Instance store not supported	x	x	✓	X
r6g.large	<b>√</b>	Instance store not supported	X	x	✓	✓
r6g.xlarge	<b>√</b>	Instance store not supported	X	x	✓	✓
r6g.2xlarge	✓	Instance store not supported	X	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6g.4xlarge	✓	Instance store not supported	X	X	✓	✓
r6g.8xlarge	✓	Instance store not supported	x	x	✓	✓
r6g.12xlarge	✓	Instance store not supported	x	x	✓	✓
r6g.16xlarge	✓	Instance store not supported	x	x	✓	✓
r6g.metal	✓	Instance store not supported	x	x	X	X
		ı	R6gd			
r6gd.medium	✓	✓	x	x	✓	x
r6gd.large	✓	✓	x	x	✓	✓
r6gd.xlarge	✓	✓	x	x	✓	✓
r6gd.2xlarge	✓	✓	x	x	✓	✓
r6gd.4xlarge	✓	✓	X	X	✓	✓
r6gd.8xlarge	✓	✓	X	X	✓	✓
r6gd.12xlarge	✓	✓	x	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6gd.16xlarge	✓	✓	X	X	✓	✓
r6gd.metal	✓	✓	x	x	x	x
			R6i			
r6i.large	✓	Instance store not supported	✓	x	✓	X
r6i.xlarge	✓	Instance store not supported	✓	X	✓	✓
r6i.2xlarge	✓	Instance store not supported	✓	x	✓	✓
r6i.4xlarge	✓	Instance store not supported	✓	x	✓	✓
r6i.8xlarge	✓	Instance store not supported	✓	x	<b>√</b>	✓
r6i.12xlarge	✓	Instance store not supported	✓	x	✓	✓
r6i.16xlarge	✓	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
r6i.24xlarge	✓	Instance store not supported	✓	x	✓	✓		
r6i.32xlarge	✓	Instance store not supported	✓	X	✓	✓		
r6i.metal	✓	Instance store not supported	✓	X	X	X		
R6idn								
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		
		ı	R6in					

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r6in.large	✓	Instance store not supported	✓	x	✓	X
r6in.xlarge	✓	Instance store not supported	✓	x	✓	✓
r6in.2xlarge	✓	Instance store not supported	✓	x	✓	✓
r6in.4xlarge	✓	Instance store not supported	✓	x	✓	✓
r6in.8xlarge	✓	Instance store not supported	✓	x	✓	✓
r6in.12xlarge	✓	Instance store not supported	✓	x	✓	✓
r6in.16xlarge	✓	Instance store not supported	✓	x	✓	✓
r6in.24xlarge	✓	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
r6in.32xlarge	✓	Instance store not supported	✓	x	✓	✓		
r6in.metal	✓	Instance store not supported	✓	X	X	X		
R6id								
r6id.large	✓	✓	✓	X	✓	x		
r6id.xlarge	✓	✓	✓	x	✓	✓		
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		

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7a.large	✓	Instance store not supported	✓	x	✓	X
r7a.xlarge	✓	Instance store not supported	✓	x	✓	X
r7a.2xlarge	✓	Instance store not supported	✓	X	✓	X
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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
r7a.32xlarge	✓	Instance store not supported	✓	X	✓	X		
r7a.48xlarge	<b>√</b>	Instance store not supported	✓	X	✓	X		
r7a.metal-48xl	✓	Instance store not supported	✓	X	X	X		
R7g								
r7g.medium	✓	Instance store not supported	✓	X	✓	X		
r7g.large	✓	Instance store not supported	✓	X	✓	X		
r7g.xlarge	✓	Instance store not supported	✓	X	✓	X		
r7g.2xlarge	✓	Instance store not supported	✓	x	✓	x		
r7g.4xlarge	✓	Instance store not supported	✓	X	✓	X		

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7g.8xlarge	✓	Instance store not supported	✓	x	✓	X
r7g.12xlarge	✓	Instance store not supported	✓	x	✓	X
r7g.16xlarge	✓	Instance store not supported	✓	x	✓	X
r7g.metal	✓	Instance store not supported	✓	x	x	X
		ı	R7gd			
r7gd.medium	✓	✓	✓	x	✓	x
r7gd.large	✓	✓	✓	x	✓	x
r7gd.xlarge	✓	✓	✓	x	✓	x
r7gd.2xlarge	✓	✓	✓	X	✓	x
r7gd.4xlarge	✓	✓	✓	x	✓	x
r7gd.8xlarge	✓	✓	✓	x	✓	X
r7gd.12xlarge	✓	✓	✓	X	✓	X
r7gd.16xlarge	✓	✓	✓	X	✓	X
r7gd.metal	✓	✓	✓	x	X	x

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			R7i			
r7i.large	✓	Instance store not supported	✓	x	✓	X
r7i.xlarge	✓	Instance store not supported	✓	x	✓	X
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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
r7i.48xlarge	✓	Instance store not supported	✓	X	✓	X		
r7i.metal-24xl	<b>√</b>	Instance store not supported	✓	X	X	X		
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		

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r7iz.12xlarge	✓	Instance store not supported	✓	X	✓	X
r7iz.16xlarge	✓	Instance store not supported	✓	X	✓	x
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
			R8g			
r8g.medium	✓	Instance store not supported	✓	x	✓	X
r8g.large	✓	Instance store not supported	✓	x	✓	✓
r8g.xlarge	✓	Instance store not supported	✓	x	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r8g.2xlarge	✓	Instance store not supported	✓	X	✓	✓
r8g.4xlarge	✓	Instance store not supported	✓	x	✓	✓
r8g.8xlarge	✓	Instance store not supported	✓	X	✓	✓
r8g.12xlarge	✓	Instance store not supported	✓	X	✓	✓
r8g.16xlarge	✓	Instance store not supported	✓	X	✓	✓
r8g.24xlarge	✓	Instance store not supported	✓	X	✓	✓
r8g.48xlarge	✓	Instance store not supported	✓	x	✓	✓
r8g.metal-24xl	✓	Instance store not supported	✓	X	X	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r8g.metal-48xl	<b>√</b>	Instance store not supported	✓	X	X	X
		U	-3tb1			
u-3tb1.56xlarge	<b>√</b>	Instance store not supported	✓	X	X	X
		U	-6tb1			
u-6tb1.56xlarge	<b>√</b>	Instance store not supported	✓	x	x	X
u-6tb1.112xlarge	<b>√</b>	Instance store not supported	✓	x	x	X
u-6tb1.metal	<b>√</b>	Instance store not supported	✓	X	x	X
		U	-9tb1			
u-9tb1.112xlarge	✓	Instance store not supported	✓	X	X	X
u-9tb1.metal	✓	Instance store not supported	✓	X	x	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
		U-	·12tb1			
u-12tb1.112xlarge	✓	Instance store not supported	✓	X	x	x
u-12tb1.metal	<b>√</b>	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
u-24tb1.metal	✓	Instance store not supported	✓	X	X	X
		U7	'i-12tb			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves		
u7i-12tb. 224xlarge	✓	Instance store not supported	✓	X	✓	✓		
		<b>U7</b> i	in-16tb					
u7in-16tb .224xlarge	✓	Instance store not supported	✓	X	✓	✓		
		<b>U7</b> i	in-24tb					
u7in-24tb .224xlarge	<b>√</b>	Instance store not supported	✓	x	✓	✓		
		U7	in-32tb					
u7in-32tb .224xlarge	✓	Instance store not supported	✓	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	✓		

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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
		×	(2idn			
x2idn.16xlarge	✓	✓	✓	x	✓	✓
x2idn.24xlarge	✓	✓	✓	x	✓	✓
x2idn.32xlarge	✓	✓	✓	x	✓	✓
x2idn.metal	✓	✓	✓	x	x	x
		X	2iedn			
x2iedn.xlarge	✓	✓	✓	x	✓	✓
x2iedn.2xlarge	✓	✓	✓	x	✓	✓
x2iedn.4xlarge	✓	✓	✓	x	✓	✓
x2iedn.8xlarge	✓	✓	✓	X	✓	✓
x2iedn.16xlarge	✓	✓	✓	X	✓	✓
x2iedn.24xlarge	✓	✓	✓	X	✓	✓
x2iedn.32xlarge	✓	✓	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
x2iedn.metal	✓	✓	✓	X	X	x
		х	2iezn			
x2iezn.2xlarge	✓	Instance store not supported	<b>√</b>	x	✓	✓
x2iezn.4xlarge	✓	Instance store not supported	✓	X	✓	✓
x2iezn.6xlarge	✓	Instance store not supported	✓	X	✓	✓
x2iezn.8xlarge	✓	Instance store not supported	✓	X	✓	✓
x2iezn.12xlarge	✓	Instance store not supported	✓	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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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	✓	✓
z1d.6xlarge	✓	✓	x	x	✓	✓
z1d.12xlarge	✓	✓	X	X	✓	✓
z1d.metal	✓	✓	x	X	x	x

## **Specifications for Amazon EC2 storage optimized instances**

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

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

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- Network specifications
- Amazon EBS specifications
- Instance store specifications
- Security specifications

#### **Pricing**

For pricing information, see Amazon EC2 On-Demand Pricing.

### **Available sizes**

Instance type	Available sizes
D2	d2.xlarge  d2.2xlarge  d2.4xlarge  d2.8xlarge
D3	d3.xlarge   d3.2xlarge   d3.4xlarge   d3.8xlarge
D3en	d3en.xlarge  d3en.2xlarge  d3en.4xlarge  d3en.6xlarge   d3en.8xlarge  d3en.12xlarge
H1	h1.2xlarge   h1.4xlarge   h1.8xlarge   h1.16xlarge
13	<pre>i3.large i3.xlarge i3.2xlarge i3.4xlarge i3.8xlarge  i3.16xlarge i3.metal</pre>
l3en	<pre>i3en.large  i3en.xlarge  i3en.2xlarge  i3en.3xlarge   i3en.6xlarge  i3en.12xlarge  i3en.24xlarge  i3en.metal</pre>
l4g	i4g.large  i4g.xlarge  i4g.2xlarge  i4g.4xlarge  i4g.8xlar ge  i4g.16xlarge
I4i	<pre>i4i.large   i4i.xlarge   i4i.2xlarge   i4i.4xlarge   i4i.8xlar ge   i4i.12xlarge   i4i.16xlarge   i4i.24xlarge   i4i.32xlarge   i4i.metal</pre>

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Instance type	Available sizes
lm4gn	<pre>im4gn.large  im4gn.xlarge  im4gn.2xlarge  im4gn.4xlarge   im4gn.8xlarge  im4gn.16xlarge</pre>
ls4gen	<pre>is4gen.medium  is4gen.large  is4gen.xlarge  is4gen.2xlarge   is4gen.4xlarge  is4gen.8xlarge</pre>

# **Platform summary**

Instance type	Hypervis r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
D2	Xen	Intel (x86_64)	X	✓	✓	x	Windows   Linux
D3	Nitro v3	Intel (x86_64)	x	X	✓	x	Windows   Linux
D3en	Nitro v3	Intel (x86_64)	X	X	✓	X	Windows   Linux
H1	Xen	Intel (x86_64)	X	✓	1	X	Windows   Linux
13	Xen *	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
l3en	Nitro v3	Intel (x86_64)	✓	✓	✓	✓	Windows   Linux
l4g	Nitro v4	AWS Graviton (arm64)	X	✓	✓	X	Linux

Platform summary 280

Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
14i	Nitro v4	Intel (x86_64)	✓	✓	✓	x	Windows   Linux
lm4gn	Nitro v4	AWS Graviton (arm64)	X	✓	✓	X	Linux
ls4gen	Nitro v4	AWS Graviton (arm64)	X	X	1	X	Linux



 $<sup>\</sup>mbox{\ensuremath{^{*}}}\mbox{\ensuremath{^{13}}}\mbox{\ensuremath{^{*}}}\mbox{\ensuremath{^{13}}}\mbox{\ensuremath{^{*}}}\mbox{\ensuremath{^{23}}}\mbox{\ensuremath{^{*}}}\mbox{\ensuremath{^{23}}}\mbox{\ensuremath{^{*}}}\mbox{\ensuremath{^{23}}$ 

## **Performance specifications**

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			D2					
d2.xlarge	X	30.50	Intel Xeon E52676v3	4	2	2	X	X
d2.2xlarge	X	61.00	Intel Xeon E52676v3	8	4	2	x	X
d2.4xlarge	X	122.00	Intel Xeon E52676v3	16	8	2	X	X

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Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory			
d2.8xlarge	X	244.00	Intel Xeon E52676v3	36	18	2	X	X			
D3											
d3.xlarge	X	32.00	Intel Xeon Platinum 8259	4	2	2	X	X			
d3.2xlarge	X	64.00	Intel Xeon Platinum 8259	8	4	2	X	X			
d3.4xlarge	X	128.00	Intel Xeon Platinum 8259	16	8	2	X	X			
d3.8xlarge	X	256.00	Intel Xeon Platinum 8259	32	16	2	X	X			
D3en											
d3en.xlarge	X	16.00	Intel Xeon Platinum 8259	4	2	2	X	X			
d3en.2xla rge	X	32.00	Intel Xeon Platinum 8259	8	4	2	X	x			
d3en.4xla rge	X	64.00	Intel Xeon Platinum 8259	16	8	2	X	X			

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Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Acceleration or memory
d3en.6xla rge	X	96.00	Intel Xeon Platinum 8259	24	12	2	X	x
d3en.8xla rge	X	128.00	Intel Xeon Platinum 8259	32	16	2	X	X
d3en.12xl arge	X	192.00	Intel Xeon Platinum 8259	48	24	2	X	X
			H1					
h1.2xlarge	X	32.00	Intel Broadwell E5-2686v4	8	4	2	X	X
h1.4xlarge	X	64.00	Intel Broadwell E5-2686v4	16	8	2	X	X
h1.8xlarge	X	128.00	Intel Broadwell E5-2686v4	32	16	2	X	X
h1.16xlarge	X	256.00	Intel Broadwell E5-2686v4	64	32	2	X	X
			13					
i3.large	X	15.25	Intel Broadwell E5-2686v4	2	1	2	X	x

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
i3.xlarge	X	30.50	Intel Broadwell E5-2686v4	4	2	2	X	X
i3.2xlarge	X	61.00	Intel Broadwell E5-2686v4	8	4	2	X	X
i3.4xlarge	X	122.00	Intel Broadwell E5-2686v4	16	8	2	X	X
i3.8xlarge	X	244.00	Intel Broadwell E5-2686v4	32	16	2	X	X
i3.16xlarge	X	488.00	Intel Broadwell E5-2686v4	64	32	2	X	X
i3.metal	X	512.00	Intel Broadwell E5-2686v4	72	36	2	X	X
			I3en					
i3en.large	X	16.00	Intel Xeon Platinum 8175	2	1	2	X	X
i3en.xlarge	X	32.00	Intel Xeon Platinum 8175	4	2	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
i3en.2xlarge	X	64.00	Intel Xeon Platinum 8175	8	4	2	X	X
i3en.3xlarge	X	96.00	Intel Xeon Platinum 8175	12	6	2	X	X
i3en.6xlarge	X	192.00	Intel Xeon Platinum 8175	24	12	2	X	X
i3en.12xl arge	X	384.00	Intel Xeon Platinum 8175	48	24	2	X	X
i3en.24xl arge	X	768.00	Intel Xeon Platinum 8175	96	48	2	X	X
i3en.metal	X	768.00	Intel Xeon Platinum 8175	96	48	2	X	X
			I4g					
i4g.large	X	16.00	AWS Graviton2 Processor	2	2	1	X	X
i4g.xlarge	X	32.00	AWS Graviton2 Processor	4	4	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
i4g.2xlarge	X	64.00	AWS Graviton2 Processor	8	8	1	X	X
i4g.4xlarge	X	128.00	AWS Graviton2 Processor	16	16	1	X	X
i4g.8xlarge	X	256.00	AWS Graviton2 Processor	32	32	1	X	X
i4g.16xlarge	X	512.00	AWS Graviton2 Processor	64	64	1	X	X
			<b>14i</b>					
i4i.large	X	16.00	Intel Xeon Ice Lake	2	1	2	X	X
i4i.xlarge	X	32.00	Intel Xeon Ice Lake	4	2	2	X	X
i4i.2xlarge	X	64.00	Intel Xeon Ice Lake	8	4	2	X	X
i4i.4xlarge	X	128.00	Intel Xeon Ice Lake	16	8	2	X	X
i4i.8xlarge	X	256.00	Intel Xeon Ice Lake	32	16	2	X	X
i4i.12xlarge	X	384.00	Intel Xeon Ice Lake	48	24	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
i4i.16xlarge	X	512.00	Intel Xeon Ice Lake	64	32	2	X	X
i4i.24xlarge	X	768.00	Intel Xeon Ice Lake	96	48	2	X	X
i4i.32xlarge	X	1024.00	Intel Xeon Ice Lake	128	64	2	X	X
i4i.metal	X	1024.00	Intel Xeon Ice Lake	128	64	2	x	X
			lm4gı	n				
im4gn.large	X	8.00	AWS Graviton2 Processor	2	2	1	X	X
im4gn.xla rge	X	16.00	AWS Graviton2 Processor	4	4	1	X	X
im4gn.2xl arge	X	32.00	AWS Graviton2 Processor	8	8	1	X	X
im4gn.4xl arge	X	64.00	AWS Graviton2 Processor	16	16	1	X	X
im4gn.8xl arge	X	128.00	AWS Graviton2 Processor	32	32	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
im4gn.16x large	X	256.00	AWS Graviton2 Processor	64	64	1	X	X
			ls4gei	n				
is4gen.me dium	X	6.00	AWS Graviton2 Processor	1	1	1	X	X
is4gen.large	X	12.00	AWS Graviton2 Processor	2	2	1	X	X
is4gen.xl arge	X	24.00	AWS Graviton2 Processor	4	4	1	X	X
is4gen.2x large	X	48.00	AWS Graviton2 Processor	8	8	1	X	x
is4gen.4x large	X	96.00	AWS Graviton2 Processor	16	16	1	X	X
is4gen.8x large	X	192.00	AWS Graviton2 Processor	32	32	1	X	X

# **Network specifications**

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
			I	H1				
h1.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
h1.4xlarge <sup>1</sup>	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	✓
				13				
i3.large <sup>1</sup>	0.75 / 10.0	x	✓	X	1	3	10	✓
i3.xlarge <sup>1</sup>	1.25 / 10.0	x	✓	x	1	4	15	✓
i3.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
i3.4xlarge <sup>1</sup>	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	✓
			13	Sen				
i3en.large <sup>1</sup>	2.1 / 25.0	X	✓	X	1	3	10	✓
i3en.xlarge <sup>1</sup>	4.2 / 25.0	X	✓	x	1	4	15	✓
i3en.2xlarge <sup>1</sup>	8.4 / 25.0	x	✓	x	1	4	15	✓
i3en.3xlarge <sup>1</sup>	12.5 / 25.0	X	✓	X	1	4	15	✓
i3en.6xlarge	25 Gigabit	X	✓	x	1	8	30	✓

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
i4i.32xlarge	75 Gigabit	✓	✓	✓	1	15	50	✓
i4i.metal	75 Gigabit	✓	✓	✓	1	15	50	✓
			lm	4gn				
im4gn.large <sup>1</sup>	3.125 / 25.0	X	✓	X	1	3	10	✓
im4gn.xlarge <sup>1</sup>	6.25 / 25.0	X	✓	X	1	4	15	✓
im4gn.2xlarge 1	12.5 / 25.0	X	✓	X	1	4	15	✓
im4gn.4xlarge	25 Gigabit	X	✓	✓	1	8	30	✓
im4gn.8xlarge	50 Gigabit	X	✓	✓	1	8	30	✓
im4gn.16x large	100 Gigabit	✓	✓	✓	1	15	50	✓
			ls4	lgen				
is4gen.me dium <sup>1</sup>	1.562 / 25.0	X	✓	X	1	2	4	✓
is4gen.large <sup>1</sup>	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

<sup>1</sup> 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.

<sup>2</sup> These instances support enhanced networking using the Intel 82599 VF interface.

### **Amazon EBS specifications**

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

#### Important

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

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization 2
		D	2		
d2.xlarge	750.00	93.75	6000.00	X	default
d2.2xlarge	1000.00	125.00	8000.00	X	default
d2.4xlarge	2000.00	250.00	16000.00	X	default
d2.8xlarge	4000.00	500.00	32000.00	X	default
		D	3		
d3.xlarge <sup>1</sup>	850.00 / 2800.00	106.25 / 350.00	5000.00 / 15000.00	✓	default
d3.2xlarge <sup>1</sup>	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
		D3	en		
d3en.xlarge <sup>1</sup>	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

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.8xlarge	5000.00	625.00	30000.00	✓	default
d3en.12xl arge	7000.00	875.00	40000.00	✓	default
		н	1		
h1.2xlarge	1750.00	218.75	12000.00	X	default
h1.4xlarge	3500.00	437.50	20000.00	X	default
h1.8xlarge	7000.00	875.00	40000.00	X	default
h1.16xlarge	14000.00	1750.00	80000.00	X	default
		I	3		
i3.large	425.00	53.12	3000.00	X	default
i3.xlarge	850.00	106.25	6000.00	X	default
i3.2xlarge	1700.00	212.50	12000.00	X	default
i3.4xlarge	3500.00	437.50	16000.00	X	default
i3.8xlarge	7000.00	875.00	32500.00	X	default
i3.16xlarge	14000.00	1750.00	65000.00	X	default
i3.metal	19000.00	2375.00	80000.00	✓	default
		13	en		
i3en.large <sup>1</sup>	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 <sup>1</sup>	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
		14	lg		
i4g.large <sup>1</sup>	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	default
i4g.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	default
i4g.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	default
i4g.4xlarge <sup>1</sup>	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
		14	4i		
i4i.large <sup>1</sup>	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	default
i4i.xlarge <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	default
i4i.2xlarge <sup>1</sup>	2500.00 / 10000.00	312.50 / 1250.00	10000.00 / 40000.00	✓	default
i4i.4xlarge <sup>1</sup>	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
		lm4	4gn		
im4gn.large <sup>1</sup>	1250.00 / 10000.00	156.25 / 1250.00	5000.00 / 40000.00	✓	default
im4gn.xlarge	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.2xl arge <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
im4gn.4xl arge	10000.00	1250.00	40000.00	✓	default
im4gn.8xl arge	20000.00	2500.00	80000.00	✓	default
im4gn.16x large	40000.00	5000.00	160000.00	✓	default
		ls4	gen		
is4gen.me dium <sup>1</sup>	625.00 / 10000.00	78.12 / 1250.00	2500.00 / 40000.00	✓	default
is4gen.large <sup>1</sup>	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.2x large <sup>1</sup>	5000.00 / 10000.00	625.00 / 1250.00	20000.00 / 40000.00	✓	default
is4gen.4x large	10000.00	1250.00	40000.00	✓	default
is4gen.8x large	20000.00	2500.00	80000.00	✓	default

Instance Types Amazon EC2



#### Note

<sup>1</sup> 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.

<sup>2</sup> 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**

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

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
		D	2		
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		✓	
		D	3		
d3.xlarge	3 x 1980 GB	NVMe HDD			✓
d3.2xlarge	6 x 1980 GB	NVMe HDD			✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
d3.4xlarge	12 x 1980 GB	NVMe HDD			✓
d3.8xlarge	24 x 1980 GB	NVMe HDD			✓
		D3	Sen		
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			✓
		Н	11		
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	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
		ı	3		
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		✓
		13	en		
i3en.large	1 x 1250 GB	NVMe SSD	42,500 / 32,500		✓
i3en.xlarge	1 x 2500 GB	NVMe SSD	85,000 / 65,000		✓
i3en.2xlarge	2 x 2500 GB	NVMe SSD	170,000 / 130,000		✓
i3en.3xlarge	1 x 7500 GB	NVMe SSD	250,000 / 200,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	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		✓
		14	łg		
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		✓
		14	4i		
i4i.large	1 x 468 GB	NVMe SSD	50,000 / 27,500		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	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		✓
		Im	4gn		
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	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	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		✓
		ls4	gen		
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		✓

<sup>&</sup>lt;sup>1</sup> Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see Optimize disk performance for instance store volumes.

### **Security specifications**

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			D2			
d2.xlarge	✓	X	x	x	x	x
d2.2xlarge	✓	x	x	x	x	X
d2.4xlarge	✓	x	x	x	x	x
d2.8xlarge	✓	X	X	X	X	x
			D3			
d3.xlarge	✓	✓	✓	x	✓	✓
d3.2xlarge	✓	✓	✓	x	✓	✓
d3.4xlarge	✓	✓	✓	x	✓	✓
d3.8xlarge	✓	✓	✓	x	✓	✓
		ı	D3en			
d3en.xlarge	✓	✓	✓	x	✓	✓
d3en.2xlarge	✓	✓	✓	x	✓	✓
d3en.4xlarge	✓	✓	✓	X	✓	✓
d3en.6xlarge	✓	✓	✓	X	✓	✓
d3en.8xlarge	✓	✓	✓	X	✓	✓

<sup>&</sup>lt;sup>2</sup> For more information, see <u>Instance store volume TRIM support</u>.

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
d3en.12xlarge	✓	✓	✓	x	✓	✓
			Н1			
h1.2xlarge	✓	✓	X	x	X	x
h1.4xlarge	✓	✓	x	x	x	x
h1.8xlarge	✓	✓	X	x	X	x
h1.16xlarge	✓	✓	x	x	x	x
			13			
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
			l3en			
i3en.large	✓	✓	✓	X	✓	x
i3en.xlarge	✓	✓	✓	X	✓	✓
i3en.2xlarge	✓	✓	✓	X	✓	✓
i3en.3xlarge	✓	✓	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n 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	✓
			l4i			
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 encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
i4i.24xlarge	✓	✓	✓	x	✓	✓
i4i.32xlarge	✓	✓	✓	x	✓	✓
i4i.metal	✓	✓	✓	x	x	x
		lı	m4gn			
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
		ls	4gen			
is4gen.medium	✓	✓	✓	x	x	x
is4gen.large	✓	✓	✓	X	X	x
is4gen.xlarge	✓	✓	✓	X	X	x
is4gen.2xlarge	✓	✓	✓	X	X	x
is4gen.4xlarge	✓	✓	✓	X	X	x
is4gen.8xlarge	✓	✓	✓	X	X	x

### Specifications for Amazon EC2 accelerated computing instances

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

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

#### **Contents**

- Available sizes
- Platform summary
- Performance specifications
- Network specifications
- Amazon EBS specifications
- Instance store specifications
- Security specifications

#### **Pricing**

For pricing information, see <u>Amazon EC2 On-Demand Pricing</u>.

### **Available sizes**

Instance type	Available sizes
DL1	dl1.24xlarge
DL2q	dl2q.24xlarge
F1	f1.2xlarge   f1.4xlarge   f1.16xlarge
G4ad	g4ad.xlarge  g4ad.2xlarge  g4ad.4xlarge  g4ad.8xlarge  g4ad.16xlarge

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Instance type	Available sizes
G4dn	g4dn.xlarge  g4dn.2xlarge  g4dn.4xlarge  g4dn.8xlarge  g4dn.12xlarge  g4dn.16xlarge  g4dn.metal
G5	g5.xlarge  g5.2xlarge  g5.4xlarge  g5.8xlarge  g5.12xlarge  g5.16xlarge  g5.24xlarge  g5.48xlarge
G5g	g5g.xlarge  g5g.2xlarge  g5g.4xlarge  g5g.8xlarge  g5g.16xlarge  g5g.metal
G6	g6.xlarge   g6.2xlarge   g6.4xlarge   g6.8xlarge   g6.12xlarge   g6.16xlarge   g6.24xlarge   g6.48xlarge
G6e	g6e.xlarge  g6e.2xlarge  g6e.4xlarge  g6e.8xlarge  g6e.12xlarge  g6e.16xlarge  g6e.24xlarge  g6e.48xlarge
Gr6	gr6.4xlarge   gr6.8xlarge
Inf1	<pre>inf1.xlarge  inf1.2xlarge  inf1.6xlarge  inf1.24xlarge</pre>
Inf2	<pre>inf2.xlarge  inf2.8xlarge  inf2.24xlarge  inf2.48xlarge</pre>
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

Available sizes 310

## **Platform summary**

Instance type	Hypervis r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
DL1	Nitro v3	Intel (x86_64)	X	✓	✓	x	Linux
DL2q	Nitro v3	Intel (x86_64)	X	✓	✓	X	Linux
F1	Xen	Intel (x86_64)	X	✓	✓	X	Linux
G4ad	Nitro v3	AMD (x86_64)	X	✓	✓	X	Windows   Linux
G4dn	Nitro v3	Intel (x86_64)	✓	✓	✓	X	Windows   Linux
G5	Nitro v3	AMD (x86_64)	X	✓	✓	X	Windows   Linux
G5g	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	X	Linux
G6	Nitro v4	AMD (x86_64)	X	✓	✓	X	Windows   Linux
G6e	Nitro v4	AMD (x86_64)	X	✓	✓	X	Windows   Linux
Gr6	Nitro v4	AMD (x86_64)	X	X	✓	X	Windows   Linux

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Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
Inf1	Nitro v3	Intel (x86_64)	X	✓	✓	X	Linux
Inf2	Nitro v4	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 v3	Intel (x86_64)	X	✓	✓	X	Windows   Linux
P4d	Nitro v3	Intel (x86_64)	X	✓	✓	X	Linux
P4de	Nitro v3	Intel (x86_64)	x	✓	✓	X	Linux
P5	Nitro v4	AMD (x86_64)	X	X	✓	X	Linux
Trn1	Nitro v4	Intel (x86_64)	X	✓	✓	X	Linux
Trn1n	Nitro v4	Intel (x86_64)	X	X	✓	X	Linux
VT1	Nitro v3	Intel (x86_64)	X	✓	✓	X	Linux

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# **Performance specifications**

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			DL1					
dl1.24xlarge	X	768.00	Intel Xeon P-8275CL	96	48	2	8 x Habana Gaudi HL-205 GPU	256 GiB (8 x 32 GiB)
			DL2q					
dl2q.24xl arge	X	768.00	Intel Xeon Cascade Lake	96	48	2	8 x Qualcomm Qualcomm AI100 inference accelerator	125 GiB (8 x 15 GiB)
			F1					
f1.2xlarge	X	122.00	Intel Xeon E5-2686v4	8	4	2	1 x Xilinx Virtex UltraScal e (VU9P) FPGA	64 GiB (1 x 64 GiB)
f1.4xlarge	X	244.00	Intel Xeon E5-2686v4	16	8	2	2 x Xilinx Virtex UltraScal e (VU9P) FPGA	128 GiB (2 x 64 GiB)

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelera or memory
f1.16xlarge	X	976.00	Intel Xeon E5-2686v4	64	32	2	8 x Xilinx Virtex UltraScal e (VU9P) FPGA	512 GiB (8 x 64 GiB)
			G4ad					
g4ad.xlarge	X	16.00	2nd Gen AMD EPYC 7R32	4	2	2	1 x AMD Radeon Pro V520 GPU	8 GiB (1 x 8 GiB)
g4ad.2xla rge	X	32.00	2nd Gen AMD EPYC 7R32	8	4	2	1 x AMD Radeon Pro V520 GPU	8 GiB (1 x 8 GiB)
g4ad.4xla rge	X	64.00	2nd Gen AMD EPYC 7R32	16	8	2	1 x AMD Radeon Pro V520 GPU	8 GiB (1 x 8 GiB)
g4ad.8xla rge	X	128.00	2nd Gen AMD EPYC 7R32	32	16	2	2 x AMD Radeon Pro V520 GPU	16 GiB (2 x 8 GiB)
g4ad.16xl arge	X	256.00	2nd Gen AMD EPYC 7R32	64	32	2	4 x AMD Radeon Pro V520 GPU	32 GiB (4 x 8 GiB)
			G4dn					

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
g4dn.xlarge	X	16.00	Intel Xeon P-8259L	4	2	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.2xla rge	X	32.00	Intel Xeon P-8259L	8	4	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.4xla rge	X	64.00	Intel Xeon P-8259L	16	8	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.8xla rge	X	128.00	Intel Xeon P-8259L	32	16	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.12xl arge	X	192.00	Intel Xeon P-8259L	48	24	2	4 x NVIDIA T4 GPU	64 GiB (4 x 16 GiB)

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
g4dn.16xl arge	X	256.00	Intel Xeon P-8259L	64	32	2	1 x NVIDIA T4 GPU	16 GiB (1 x 16 GiB)
g4dn.metal	X	384.00	Intel Xeon P-8259L	96	48	2	8 x NVIDIA T4 GPU	128 GiB (8 x 16 GiB)
			G5					
g5.xlarge	X	16.00	2nd Gen AMD EPYC 7R32	4	2	2	1 x NVIDIA A10G GPU	24 GiB (1 x 24 GiB)
g5.2xlarge	X	32.00	2nd Gen AMD EPYC 7R32	8	4	2	1 x NVIDIA A10G GPU	24 GiB (1 x 24 GiB)
g5.4xlarge	X	64.00	2nd Gen AMD EPYC 7R32	16	8	2	1 x NVIDIA A10G GPU	24 GiB (1 x 24 GiB)

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
g5.8xlarge	X	128.00	2nd Gen AMD EPYC 7R32	32	16	2	1 x NVIDIA A10G GPU	24 GiB (1 x 24 GiB)
g5.12xlarge	X	192.00	2nd Gen AMD EPYC 7R32	48	24	2	4 x NVIDIA A10G GPU	96 GiB (4 x 24 GiB)
g5.16xlarge	X	256.00	2nd Gen AMD EPYC 7R32	64	32	2	1 x NVIDIA A10G GPU	24 GiB (1 x 24 GiB)
g5.24xlarge	X	384.00	2nd Gen AMD EPYC 7R32	96	48	2	4 x NVIDIA A10G GPU	96 GiB (4 x 24 GiB)
g5.48xlarge	X	768.00	2nd Gen AMD EPYC 7R32	192	96	2	8 x NVIDIA A10G GPU	192 GiB (8 x 24 GiB)
			G5g					

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
g5g.xlarge	X	8.00	AWS Graviton2 Processor	4	4	1	1 x NVIDIA T4g GPU	16 GiB (1 x 16 GiB)
g5g.2xlarge	X	16.00	AWS Graviton2 Processor	8	8	1	1 x NVIDIA T4g GPU	16 GiB (1 x 16 GiB)
g5g.4xlarge	X	32.00	AWS Graviton2 Processor	16	16	1	1 x NVIDIA T4g GPU	16 GiB (1 x 16 GiB)
g5g.8xlarge	X	64.00	AWS Graviton2 Processor	32	32	1	1 x NVIDIA T4g GPU	16 GiB (1 x 16 GiB)
g5g.16xla rge	X	128.00	AWS Graviton2 Processor	64	64	1	2 x NVIDIA T4g GPU	32 GiB (2 x 16 GiB)

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

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
g6.12xlarge	X	192.00	AMD EPYC 7R13	48	24	2	4 x NVIDIA L4 GPU	357 GiB (4 x 89 GiB)
g6.16xlarge	X	256.00	AMD EPYC 7R13	64	32	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)
g6.24xlarge	X	384.00	AMD EPYC 7R13	96	48	2	4 x NVIDIA L4 GPU	357 GiB (4 x 89 GiB)
g6.48xlarge	X	768.00	AMD EPYC 7R13	192	96	2	8 x NVIDIA L4 GPU	1430 GiB (8 x 178 GiB)
			G6e					
g6e.xlarge	X	32.00	AMD EPYC 7R13	4	2	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
g6e.2xlarge	X	64.00	AMD EPYC 7R13	8	4	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)
g6e.4xlarge	X	128.00	AMD EPYC 7R13	16	8	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)
g6e.8xlarge	X	256.00	AMD EPYC 7R13	32	16	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)
g6e.12xla rge	X	384.00	AMD EPYC 7R13	48	24	2	4 x NVIDIA L40S GPU	715 GiB (4 x 178 GiB)
g6e.16xla rge	X	512.00	AMD EPYC 7R13	64	32	2	1 x NVIDIA L40S GPU	44 GiB (1 x 44 GiB)

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory			
g6e.24xla rge	X	768.00	AMD EPYC 7R13	96	48	2	4 x NVIDIA L40S GPU	715 GiB (4 x 178 GiB)			
g6e.48xla rge	X	1536.00	AMD EPYC 7R13	192	96	2	8 x NVIDIA L40S GPU	2861 GiB (8 x 357 GiB)			
	Gr6										
gr6.4xlarge	X	128.00	AMD EPYC 7R13	16	8	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)			
gr6.8xlarge	X	256.00	AMD EPYC 7R13	32	16	2	1 x NVIDIA L4 GPU	22 GiB (1 x 22 GiB)			
			Inf1								
inf1.xlarge	X	8.00	Intel Xeon P-8259L	4	2	2	1 x AWS Inferentia inference accelerator	8 GiB (1 x 8 GiB)			

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
inf1.2xlarge	X	16.00	Intel Xeon P-8259L	8	4	2	1 x AWS Inferentia inference accelerator	8 GiB (1 x 8 GiB)
inf1.6xlarge	X	48.00	Intel Xeon P-8259L	24	12	2	4 x AWS Inferentia inference accelerator	32 GiB (4 x 8 GiB)
inf1.24xl arge	X	192.00	Intel Xeon P-8259L	96	48	2	16 x AWS Inferentia inference accelerator	128 GiB (16 x 8 GiB)
			Inf2					
inf2.xlarge	X	16.00	AMD EPYC 7R13	4	2	2	1 x AWS Inferentia inference accelerator	32 GiB (1 x 32 GiB)
inf2.8xlarge	X	128.00	AMD EPYC 7R13	32	16	2	1 x AWS Inferentia inference accelerator	32 GiB (1 x 32 GiB)

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
inf2.24xl arge	X	384.00	AMD EPYC 7R13	96	48	2	6 x AWS Inferentia inference accelerator	192 GiB (6 x 32 GiB)
inf2.48xl arge	X	768.00	AMD EPYC 7R13	192	96	2	12 x AWS Inferentia inference accelerator	384 GiB (12 x 32 GiB)
			P2					
p2.xlarge	X	61.00	Intel Xeon E5-2686v4	4	2	2	1 x NVIDIA K80 GPU	12 GiB (1 x 12 GiB)
p2.8xlarge	X	488.00	Intel Xeon E5-2686v4	32	16	2	8 x NVIDIA K80 GPU	96 GiB (8 x 12 GiB)
p2.16xlarge	X	732.00	Intel Xeon E5-2686 v4	64	32	2	16 x NVIDIA K80 GPU	192 GiB (16 x 12 GiB)
			Р3					

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
p3.2xlarge	X	61.00	Intel Xeon E5-2686 v4	8	4	2	1 x NVIDIA V100 GPU	16 GiB (1 x 16 GiB)
p3.8xlarge	X	244.00	Intel Xeon E5-2686 v4	32	16	2	4 x NVIDIA V100 GPU	64 GiB (4 x 16 GiB)
p3.16xlarge	X	488.00	Intel Xeon E5-2686 v4	64	32	2	8 x NVIDIA V100 GPU	128 GiB (8 x 16 GiB)
			P3dn					
p3dn.24xl arge	X	768.00	Intel Xeon Platinum 8175	96	48	2	8 x NVIDIA V100 GPU	256 GiB (8 x 32 GiB)
			P4d					
p4d.24xla rge	X	1152.00	Intel Xeon Platinum 8175	96	48	2	8 x NVIDIA A100 GPU	320 GiB (8 x 40 GiB)

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory			
			P4de								
p4de.24xl arge	X	1152.00	Intel Xeon Platinum 8175	96	48	2	8 x NVIDIA A100 GPU	640 GiB (8 x 80 GiB)			
			P5								
p5.48xlarge	X	2048.00	AMD EPYC 7R13	192	96	2	8 x NVIDIA H100 GPU	640 GiB (8 x 80 GiB)			
			Trn1								
trn1.2xlarge	x	32.00	Intel Xeon Ice Lake 8375C	8	4	2	1 x AWS Trainium accelerat ors	32 GiB (1 x 32 GiB)			
trn1.32xl arge	X	512.00	Intel Xeon Ice Lake 8375C	128	64	2	16 x AWS Trainium accelerat ors	512 GiB (16 x 32 GiB)			
	Trn1n										

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
trn1n.32x large	X	512.00	Intel Xeon Ice Lake	128	64	2	16 x AWS Trainium accelerat ors	512 GiB (16 x 32 GiB)
			VT1					
vt1.3xlarge	X	24.00	Intel Cascade Lake P-8259CL	12	6	2	1 x Xilinx U30 media accelerator	24 GiB (1 x 24 GiB)
vt1.6xlarge	X	48.00	Intel Cascade Lake P-8259CL	24	12	2	2 x Xilinx U30 media accelerator	48 GiB (2 x 24 GiB)
vt1.24xlarge	X	192.00	Intel Cascade Lake P-8259CL	96	48	2	8 x Xilinx U30 media accelerator	192 GiB (8 x 24 GiB)

## **Network specifications**

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6	
				DL1					
dl1.24xlarge	4x 100 Gigabit	✓	✓	X	4	60	50	✓	
				DL2q					
dl2q.24xlarge	100 Gigabit	✓	✓	X	1	15	50	✓	
				F1					
f1.2xlarge <sup>1</sup>	Up to 10 Gigabit	X	✓	X	1	4	15	✓	
f1.4xlarge <sup>1</sup>	Up to 10 Gigabit	X	✓	X	1	8	30	✓	
f1.16xlarge	25 Gigabit	X	✓	X	1	8	50	✓	
				G4ad					
g4ad.xlarge <sup>1</sup>	2.0 / 10.0	X	✓	X	1	2	4	✓	
g4ad.2xlarge <sup>1</sup>	4.167 / 10.0	X	✓	X	1	2	4	✓	
g4ad.4xlarge <sup>1</sup>	8.333 / 10.0	X	✓	X	1	3	10	✓	
g4ad.8xlarge	15 Gigabit	X	✓	X	1	4	15	✓	
g4ad.16xlarge	25 Gigabit	X	✓	X	1	8	30	✓	
G4dn									
g4dn.xlarge <sup>1</sup>	5.0 / 25.0	X	✓	X	1	3	10	✓	

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
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 <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
g5.2xlarge <sup>1</sup>	5.0 / 10.0	X	✓	X	1	4	15	✓
g5.4xlarge <sup>1</sup>	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	✓
g5.16xlarge	25 Gigabit	✓	✓	X	1	8	30	✓
g5.24xlarge	50 Gigabit	✓	✓	x	1	15	50	✓
g5.48xlarge	100 Gigabit	✓	✓	X	1	7	50	✓
				G5g				
g5g.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	X	1	4	15	✓

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
g6e.12xlarge	100 Gigabit	✓	✓	✓	1	10	30	✓
g6e.16xlarge	35 Gigabit	✓	✓	X	1	15	50	✓
g6e.24xlarge	200 Gigabit	✓	✓	✓	2	20	50	✓
g6e.48xlarge	400 Gigabit	✓	✓	✓	4	40	50	✓
				Gr6				
gr6.4xlarge <sup>1</sup>	10.0 / 25.0	x	✓	X	1	8	30	✓
gr6.8xlarge	25 Gigabit	✓	✓	X	1	8	30	✓
Inf1								
inf1.xlarge <sup>1</sup>	5.0 / 25.0	X	✓	X	1	4	10	✓
inf1.2xlarge <sup>1</sup>	5.0 / 25.0	X	✓	X	1	4	10	✓
inf1.6xlarge	25 Gigabit	X	✓	X	1	8	30	✓
inf1.24xlarge	100 Gigabit	✓	✓	X	1	11	30	✓
				Inf2				
inf2.xlarge <sup>1</sup>	2.083 / 15.0	X	✓	X	1	4	15	✓
inf2.8xlarge <sup>1</sup>	16.667 / 25.0	X	✓	X	1	8	30	✓
inf2.24xlarge	50 Gigabit	X	✓	X	1	15	50	✓
inf2.48xlarge	100 Gigabit	x	✓	X	1	15	50	✓
				P2				
p2.xlarge	High	X	✓	x	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
p2.8xlarge	10 Gigabit	X	✓	X	1	8	30	✓
p2.16xlarge	25 Gigabit	X	✓	X	1	8	30	✓
Р3								
p3.2xlarge <sup>1</sup>	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 <sup>1</sup>	3.125 / 12.5	X	✓	X	1	4	15	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
trn1.32xlarge	8x 100 Gigabit	✓	✓	X	8	40	50	✓
Trn1n								
trn1n.32x large	16x 100 Gigabit	✓	✓	X	16	80	50	✓
				VT1				
vt1.3xlarge	3.12 Gigabit	X	✓	X	1	4	15	✓
vt1.6xlarge	6.25 Gigabit	x	✓	x	1	8	30	✓
vt1.24xlarge	25 Gigabit	✓	✓	X	1	15	50	✓



<sup>&</sup>lt;sup>1</sup> 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 <u>instance</u> network bandwidth.

### **Amazon EBS specifications**

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

### 

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

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization 2		
		D	L1				
dl1.24xlarge	19000.00	2375.00	80000.00	✓	default		
DL2q							
dl2q.24xl arge	19000.00	2375.00	80000.00	✓	default		
		F	1				
f1.2xlarge	1700.00	212.50	12000.00	X	default		
f1.4xlarge	3500.00	437.50	44000.00	X	default		
f1.16xlarge	14000.00	1750.00	75000.00	X	default		
		G4	ad				

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.xlarge <sup>1</sup>	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
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.16xl arge	6300.00	787.50	26667.00	✓	default
		G4	dn		
g4dn.xlarge <sup>1</sup>	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.12xl arge	9500.00	1187.50	40000.00	✓	default
g4dn.16xl arge	9500.00	1187.50	40000.00	✓	default
g4dn.metal	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
		G	5		
g5.xlarge <sup>1</sup>	700.00 / 3500.00	87.50 / 437.50	3000.00 / 15000.00	✓	default
g5.2xlarge <sup>1</sup>	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
		G!	5g		
g5g.xlarge <sup>1</sup>	1188.00 / 4750.00	148.50 / 593.75	6000.00 / 20000.00	✓	default
g5g.2xlarge <sup>1</sup>	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

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
		G	6		
g6.xlarge <sup>1</sup>	1000.00 / 5000.00	125.00 / 625.00	4000.00 / 20000.00	✓	default
g6.2xlarge <sup>1</sup>	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
		G	6e		
g6e.xlarge <sup>1</sup>	1000.00 / 5000.00	125.00 / 625.00	4000.00 / 20000.00	✓	default
g6e.2xlarge <sup>1</sup>	2000.00 / 5000.00	250.00 / 625.00	8000.00 / 20000.00	✓	default
g6e.4xlarge	8000.00	1000.00	32000.00	✓	default
g6e.8xlarge	16000.00	2000.00	64000.00	✓	default
g6e.12xlarge	20000.00	2500.00	80000.00	✓	default
g6e.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			
g6e.24xlarge	30000.00	3750.00	120000.00	✓	default			
g6e.48xlarge	60000.00	7500.00	240000.00	✓	default			
		G	r6					
gr6.4xlarge	8000.00	1000.00	32000.00	✓	default			
gr6.8xlarge	16000.00	2000.00	64000.00	✓	default			
Inf1								
inf1.xlarge <sup>1</sup>	1190.00 / 4750.00	148.75 / 593.75	4000.00 / 20000.00	✓	default			
inf1.2xlarge <sup>1</sup>	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			
		In	f2					
inf2.xlarge <sup>1</sup>	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			
		P	2					

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
p2.xlarge	750.00	93.75	6000.00	X	default
p2.8xlarge	5000.00	625.00	32500.00	X	default
p2.16xlarge	10000.00	1250.00	65000.00	X	default
		Р	23		
p3.2xlarge	1750.00	218.75	10000.00	x	default
p3.8xlarge	7000.00	875.00	40000.00	X	default
p3.16xlarge	14000.00	1750.00	80000.00	X	default
		P3	dn		
p3dn.24xl arge	19000.00	2375.00	80000.00	✓	default
		P	4d		
p4d.24xlarge	19000.00	2375.00	80000.00	✓	default
		P4	de		
p4de.24xl arge	19000.00	2375.00	80000.00	✓	default
		P	25		
p5.48xlarge	80000.00	10000.00	260000.00	✓	default
		Tr	n1		

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
trn1.2xlarge	5000.00 / 20000.00	625.00 / 2500.00	16250.00 / 65000.00	✓	default
trn1.32xlarge	80000.00	10000.00	260000.00	✓	default
		Trn	11n		
trn1n.32x large	80000.00	10000.00	260000.00	✓	default
		V	Г1		
vt1.3xlarge <sup>1</sup>	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

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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**

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

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2			
DL1								
dl1.24xlarge	4 x 1000 GB	NVMe SSD	1,000,000 / 800,000		✓			
		F	1					
f1.2xlarge	1 x 470 GB	NVMe SSD			✓			
f1.4xlarge	1 x 940 GB	NVMe SSD			✓			
f1.16xlarge	4 x 940 GB	NVMe SSD			✓			
		G4	lad					
g4ad.xlarge	1 x 150 GB	NVMe SSD	10,417 / 8,333		✓			
g4ad.2xlarge	1 x 300 GB	NVMe SSD	20,833 / 16,667		✓			
g4ad.4xlarge	1 x 600 GB	NVMe SSD	41,667 / 33,333		✓			
g4ad.8xlarge	1 x 1200 GB	NVMe SSD	83,333 / 66,667		✓			

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
g4ad.16xlarge	2 x 1200 GB	NVMe SSD	166,666 / 133,332		✓
		G4	ldn		
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		✓
		G	i5		
g5.xlarge	1 x 250 GB	NVMe SSD	40,625 / 20,313		✓
g5.2xlarge	1 x 450 GB	NVMe SSD	40,625 / 20,313		✓
g5.4xlarge	1 x 600 GB	NVMe SSD	125,000 / 62,500		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓
		G	66		
g6.xlarge	1 x 250 GB	NVMe SSD	40,625 / 20,000		✓
g6.2xlarge	1 x 450 GB	NVMe SSD	40,625 / 20,000		✓
g6.4xlarge	1 x 600 GB	NVMe SSD	125,000 / 40,000		✓
g6.8xlarge	2 x 450 GB	NVMe SSD	250,000 / 80,000		✓
g6.12xlarge	4 x 940 GB	NVMe SSD	312,500 / 125,000		✓
g6.16xlarge	2 x 940 GB	NVMe SSD	250,000 / 80,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
g6.24xlarge	4 x 940 GB	NVMe SSD	312,500 / 156,248		✓
g6.48xlarge	8 x 940 GB	NVMe SSD	625,000 / 312,496		✓
		G	6e		
g6e.xlarge	1 x 250 GB	NVMe SSD	40,625 / 20,000		✓
g6e.2xlarge	1 x 450 GB	NVMe SSD	40,625 / 20,000		✓
g6e.4xlarge	1 x 600 GB	NVMe SSD	125,000 / 40,000		✓
g6e.8xlarge	2 x 450 GB	NVMe SSD	250,000 / 80,000		✓
g6e.12xlarge	2 x 1900 GB	NVMe SSD	312,500 / 125,000		✓
g6e.16xlarge	2 x 950 GB	NVMe SSD	250,000 / 80,000		✓
g6e.24xlarge	2 x 1900 GB	NVMe SSD	312,500 / 156,250		✓
g6e.48xlarge	4 x 1900 GB	NVMe SSD	625,000 / 312,500		✓
		G	r6		
gr6.4xlarge	1 x 600 GB	NVMe SSD	125,000 / 40,000		✓

Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2	
gr6.8xlarge	2 x 450 GB	NVMe SSD	250,000 / 80,000		✓	
		P3	dn			
p3dn.24xlarge	2 x 900 GB	NVMe SSD	700,000 / 340,000		✓	
		P	4d			
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		✓	
		P	25			
p5.48xlarge	8 x 3800 GB	NVMe SSD	4,400,000 / 2,200,000		✓	
		Tr	n1			
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		✓	
		Trr	11n			
trn1n.32xlarge	4 x 1900 GB	NVMe SSD	1,720,000 / 720,000		✓	

## **Security specifications**

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			DL1			
dl1.24xlarge	✓	✓	✓	X	x	✓
		ſ	DL2q			
dl2q.24xlarge	✓	Instance store not supported	✓	X	X	✓
			F1			
f1.2xlarge	✓	✓	x	x	x	x
f1.4xlarge	✓	✓	x	x	x	x
f1.16xlarge	✓	✓	x	x	x	x
		(	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

<sup>&</sup>lt;sup>1</sup> Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see Optimize disk performance for instance store volumes.

<sup>&</sup>lt;sup>2</sup> For more information, see <u>Instance store volume TRIM support</u>.

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
		(	54dn			
g4dn.xlarge	✓	✓	✓	x	✓	✓
g4dn.2xlarge	✓	✓	✓	x	✓	✓
g4dn.4xlarge	✓	✓	✓	X	✓	✓
g4dn.8xlarge	✓	✓	✓	x	✓	✓
g4dn.12xlarge	✓	✓	✓	x	✓	✓
g4dn.16xlarge	✓	✓	✓	x	✓	✓
g4dn.metal	✓	✓	✓	X	x	x
			<b>G</b> 5			
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 encryptio n	Instance store encryptio n	Encryptio n 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 encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves	
g6.12xlarge	✓	✓	✓	x	✓	✓	
g6.16xlarge	✓	✓	✓	x	✓	✓	
g6.24xlarge	✓	✓	✓	x	✓	✓	
g6.48xlarge	✓	✓	✓	x	✓	✓	
G6e							
g6e.xlarge	✓	✓	✓	x	✓	✓	
g6e.2xlarge	✓	✓	✓	x	✓	✓	
g6e.4xlarge	✓	✓	✓	x	✓	✓	
g6e.8xlarge	✓	✓	✓	x	✓	✓	
g6e.12xlarge	✓	✓	✓	x	✓	✓	
g6e.16xlarge	✓	✓	✓	x	✓	✓	
g6e.24xlarge	✓	✓	✓	x	✓	✓	
g6e.48xlarge	✓	✓	✓	x	✓	✓	
			Gr6				
gr6.4xlarge	✓	✓	✓	X	✓	✓	
gr6.8xlarge	✓	✓	✓	X	✓	✓	
			Inf1				

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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			
inf2.xlarge	✓	Instance store not supported	✓	x	✓	✓
inf2.8xlarge	<b>√</b>	Instance store not supported	✓	x	✓	✓
inf2.24xlarge	<b>√</b>	Instance store not supported	✓	x	✓	✓
inf2.48xlarge	✓	Instance store not supported	✓	X	✓	✓

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			P2			
p2.xlarge	✓	Instance store not supported	X	X	X	X
p2.8xlarge	✓	Instance store not supported	X	X	X	X
p2.16xlarge	✓	Instance store not supported	X	X	X	X
			Р3			
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
		i	P3dn			
p3dn.24xlarge	✓	✓	✓	X	X	✓
			P4d			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
p4d.24xlarge	✓	✓	✓	X	X	✓
		i	P4de			
p4de.24xlarge	✓	✓	✓	X	X	✓
			P5			
p5.48xlarge	✓	✓	✓	x	x	✓
		-	Trn1			
trn1.2xlarge	✓	✓	✓	x	x	x
trn1.32xlarge	✓	✓	✓	x	x	x
		Т	rn1n			
trn1n.32xlarge	✓	✓	✓	x	x	x
			VT1			
vt1.3xlarge	✓	Instance store not supported	<b>√</b>	x	x	X
vt1.6xlarge	✓	Instance store not supported	✓	X	X	X
vt1.24xlarge	✓	Instance store not supported	✓	X	X	X

# Specifications for Amazon EC2 high-performance computing instances

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

### **Contents**

- Available sizes
- Platform summary
- Performance specifications
- Network specifications
- Amazon EBS specifications
- Instance store specifications
- Security specifications

### **Pricing**

For pricing information, see <u>Amazon EC2 On-Demand Pricing</u>.

### Available sizes

Instance type	Available sizes
Нрс6а	hpc6a.48xlarge
Hpc6id	hpc6id.32xlarge
Нрс7а	hpc7a.12xlarge  hpc7a.24xlarge  hpc7a.48xlarge  hpc7a.96xlarge
Нрс7д	hpc7g.4xlarge  hpc7g.8xlarge  hpc7g.16xlarge

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## **Platform summary**

Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
Нрс6а	Nitro v4	AMD (x86_64)	X	X	X	x	Linux
Hpc6id	Nitro v4	Intel (x86_64)	X	X	X	x	Windows   Linux
Нрс7а	Nitro v4	AMD (x86_64)	X	X	X	x	Windows   Linux
Нрс7д	Nitro v5	AWS Graviton (arm64)	X	x	X	X	Linux

## **Performance specifications**

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
Нрс6а								
hpc6a.48x large	X	384.00	AMD EPYC 7R13	96	96	1	X	X
Hpc6id								
hpc6id.32 xlarge	X	1024.00	Intel Xeon Ice Lake	64	64	1	X	X
Нрс7а								

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Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
hpc7a.12x large	X	768.00	AMD EPYC 9R14	24	24	1	X	X
hpc7a.24x large	X	768.00	AMD EPYC 9R14	48	48	1	X	X
hpc7a.48x large	X	768.00	AMD EPYC 9R14	96	96	1	X	X
hpc7a.96x large	X	768.00	AMD EPYC 9R14	192	192	1	X	X
			Нрс7	g				
hpc7g.4xl arge	X	128.00	AWS Graviton3E Processor	16	16	1	X	x
hpc7g.8xl arge	X	128.00	AWS Graviton3E Processor	32	32	1	X	X
hpc7g.16x large	X	128.00	AWS Graviton3E Processor	64	64	1	X	X

# **Network specifications**

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6			
Нрс6а											
hpc6a.48x large	100 Gigabit	✓	✓	X	1	2	50	✓			
Hpc6id											
hpc6id.32 xlarge	200 Gigabit	✓	✓	X	2	2	50	✓			
Нрс7а											
hpc7a.12x large	300 Gigabit	✓	✓	X	2	4	50	✓			
hpc7a.24x large	300 Gigabit	✓	✓	X	2	4	50	✓			
hpc7a.48x large	300 Gigabit	✓	✓	X	2	4	50	✓			
hpc7a.96x large	300 Gigabit	✓	✓	X	2	4	50	✓			
	Hpc7g										
hpc7g.4xlarge	200 Gigabit	✓	✓	X	1	4	50	✓			
hpc7g.8xlarge	200 Gigabit	✓	✓	X	1	4	50	✓			
hpc7g.16x large	200 Gigabit	✓	✓	X	1	4	50	✓			

#### **Amazon EBS specifications**

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

#### Important

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

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization 2			
Нрс6а								
hpc6a.48x large <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default			
Hpc6id								

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				
hpc6id.32 xlarge <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default				
Нрс7а									
hpc7a.12x large <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default				
hpc7a.24x large <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default				
hpc7a.48x large <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default				
hpc7a.96x large <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default				
		Нре	c7g						
hpc7g.4xl arge <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default				
hpc7g.8xl arge <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default				
hpc7g.16x large <sup>1</sup>	87.00 / 2085.00	10.88 / 260.62	500.00 / 11000.00	✓	default				

#### Note

<sup>&</sup>lt;sup>1</sup> 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.

<sup>2</sup> 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**

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

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

<sup>&</sup>lt;sup>1</sup> Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see Optimize disk performance for instance store volumes.

#### **Security specifications**

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves			
Нрс6а									
hpc6a.48xlarge	✓	Instance store not	✓	X	✓	X			

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<sup>&</sup>lt;sup>2</sup> For more information, see Instance store volume TRIM support.

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
		supported				
		н	pc6id			
hpc6id.32xlarge	✓	✓	✓	x	✓	X
		Н	lpc7a			
hpc7a.12xlarge	✓	Instance store not supported	✓	x	x	X
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
		н	pc7g			
hpc7g.4xlarge	✓	Instance store not supported	✓	X	X	X
hpc7g.8xlarge	✓	Instance store not supported	✓	x	x	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
hpc7g.16xlarge	✓	Instance store not supported	✓	x	x	X

## Specifications for Amazon EC2 previous generation instances

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

#### **Contents**

- Available sizes
- Platform summary
- Performance specifications
- Network specifications
- Amazon EBS specifications
- Instance store specifications
- Security specifications

#### **Pricing**

For pricing information, see Amazon EC2 On-Demand Pricing.

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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
G3	g3.4xlarge  g3.8xlarge  g3.16xlarge
12	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	<pre>m4.large m4.xlarge  m4.2xlarge  m4.4xlarge  m4.10xlarge   m4.16xlarge</pre>
R3	r3.large r3.xlarge r3.2xlarge r3.4xlarge r3.8xlarge
R4	r4.large r4.xlarge r4.2xlarge r4.4xlarge r4.8xlarge  r4.16xlarge
T1	t1.micro

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# **Platform summary**

Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
A1	Nitro v2	AWS Graviton (arm64)	✓	✓	✓	X	Linux
C1	Xen	Intel (x86_64)	x	X	✓	x	Windows   Linux
C3	Xen	Intel (x86_64)	X	✓	✓	✓	Windows   Linux
C4	Xen	Intel (x86_64)	X	✓	✓	✓	Windows   Linux
G3	Xen	Intel (x86_64)	X	✓	✓	x	Windows   Linux
12	Xen	Intel (x86_64)	X	✓	✓	X	Windows   Linux
M1	Xen	Intel (x86_64)	X	X	✓	x	Windows   Linux
M2	Xen	Intel (x86_64)	X	X	✓	X	Windows   Linux
M3	Xen	Intel (x86_64)	X	✓	✓	✓	Windows   Linux
M4	Xen	Intel (x86_64)	X	✓	✓	✓	Windows   Linux

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Instance type	Hypervi: r	Processor type (architec ture)	Metal instances available	Dedicate Hosts support	Spot support	Hibernati on support	Supported operating systems
R3	Xen	Intel (x86_64)	X	✓	✓	✓	Windows   Linux
R4	Xen	Intel (x86_64)	x	✓	✓	✓	Windows   Linux
T1	Xen	Intel (i386)	X	X	✓	x	Windows   Linux

# **Performance specifications**

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
			<b>A</b> 1					
a1.medium	x	2.00	AWS Graviton Processor	1	1	1	X	X
a1.large	x	4.00	AWS Graviton Processor	2	2	1	X	X
a1.xlarge	x	8.00	AWS Graviton Processor	4	4	1	X	X
a1.2xlarge	X	16.00	AWS Graviton Processor	8	8	1	X	X
a1.4xlarge	x	32.00	AWS Graviton Processor	16	16	1	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
a1.metal	x	32.00	AWS Graviton Processor	16	16	1	X	X
			<b>C</b> 1					
c1.medium	x	1.70	Intel Xeon Family	2	2	1	X	X
c1.xlarge	X	7.00	Intel Xeon Family	8	8	1	x	X
			С3					
c3.large	x	3.75	Intel Xeon E5-2680v2	2	1	2	X	X
c3.xlarge	x	7.50	Intel Xeon E5-2680v2	4	2	2	x	X
c3.2xlarge	x	15.00	Intel Xeon E5-2680v2	8	4	2	X	X
c3.4xlarge	x	30.00	Intel Xeon E5-2680v2	16	8	2	X	X
c3.8xlarge	x	60.00	Intel Xeon E5-2680v2	32	16	2	X	X
			C4					
c4.large	x	3.75	Intel Xeon E5-2666v3	2	1	2	x	X
c4.xlarge	x	7.50	Intel Xeon E5-2666v3	4	2	2	x	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
c4.2xlarge	X	15.00	Intel Xeon E5-2666v3	8	4	2	X	X
c4.4xlarge	X	30.00	Intel Xeon E5-2666v3	16	8	2	X	X
c4.8xlarge	X	60.00	Intel Xeon E5-2666v3	36	18	2	X	X
			G3					
g3.4xlarge	X	122.00	Intel Xeon E5-2686 v4	16	8	2	1 x NVIDIA M60 GPU	8 GiB (1 x 8 GiB)
g3.8xlarge	X	244.00	Intel Xeon E5-2686 v4	32	16	2	2 x NVIDIA M60 GPU	16 GiB (2 x 8 GiB)
g3.16xlarge	X	488.00	Intel Xeon E5-2686 v4	64	32	2	4 x NVIDIA M60 GPU	32 GiB (4 x 8 GiB)
			12					
i2.xlarge	X	30.50	Intel Xeon E5-2670v2	4	2	2	x	X
i2.2xlarge	X	61.00	Intel Xeon E5-2670v2	8	4	2	X	X
i2.4xlarge	X	122.00	Intel Xeon E5-2670v2	16	8	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Acceleration or memory
i2.8xlarge	X	244.00	Intel Xeon E5-2670v2	32	16	2	X	X
			M1					
m1.small	X	1.70	Intel Xeon Family	1	1	1	X	X
m1.medium	X	3.70	Intel Xeon Family	1	1	1	X	X
m1.large	X	7.50	Intel Xeon Family	2	2	1	X	X
m1.xlarge	X	15.00	Intel Xeon Family	4	4	1	X	X
			M2					
m2.xlarge	X	17.10	Intel Xeon Family	2	2	1	X	X
m2.2xlarge	X	34.20	Intel Xeon Family	4	4	1	X	X
m2.4xlarge	X	68.40	Intel Xeon Family	8	8	1	X	X
			М3					
m3.medium	X	3.75	Intel Xeon E5-2670v2	1	1	1	X	X
m3.large	X	7.50	Intel Xeon E5-2670v2	2	1	2	X	X

Instance type	Burstabl	Memory (GiB)	Processor	vCPUs	CPU cores	Thread per core	Accelerat ors	Accelerat or memory
m3.xlarge	X	15.00	Intel Xeon E5-2670v2	4	2	2	X	X
m3.2xlarge	X	30.00	Intel Xeon E5-2670v2	8	4	2	X	X
			M4					
m4.large	X	8.00	Intel Xeon E5-2676v3	2	1	2	x	X
m4.xlarge	X	16.00	Intel Xeon E5-2676v3	4	2	2	x	X
m4.2xlarge	X	32.00	Intel Xeon E5-2676v3	8	4	2	X	X
m4.4xlarge	X	64.00	Intel Xeon E5-2676v3	16	8	2	X	X
m4.10xlarge	X	160.00	Intel Xeon E5-2676v3	40	20	2	X	X
m4.16xlarge	X	256.00	Intel Xeon E5-2686v4	64	32	2	X	X
			R3					
r3.large	X	15.00	Intel Xeon E5-2670v2	2	1	2	X	X
r3.xlarge	X	30.50	Intel Xeon E5-2670v2	4	2	2	X	X
r3.2xlarge	X	61.00	Intel Xeon E5-2670v2	8	4	2	X	X

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

# **Network specifications**

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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
c4.large	Moderate	X	<b>x</b> <sup>2</sup>	X	1	3	10	✓
c4.xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	4	15	✓
c4.2xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	4	15	✓
c4.4xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	8	30	✓
c4.8xlarge	10 Gigabit	X	<b>x</b> <sup>2</sup>	X	1	8	30	✓
				<b>G</b> 3				
g3.4xlarge <sup>1</sup>	Up to 10 Gigabit	X	✓	X	1	8	30	✓
g3.8xlarge	10 Gigabit	X	✓	X	1	8	30	✓
g3.16xlarge	25 Gigabit	X	✓	X	1	15	50	✓
				12				
i2.xlarge	Moderate	X	<b>x</b> <sup>2</sup>	X	1	4	15	✓
i2.2xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	4	15	✓
i2.4xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	8	30	✓
i2.8xlarge	10 Gigabit	X	<b>x</b> <sup>2</sup>	X	1	8	30	✓
			ľ	<b>M1</b>				
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

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
m1.xlarge	High	X	X	X	1	4	15	X
			ľ	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
			ı	<b>М</b> 3				
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
			i	M4				
m4.large	Moderate	X	<b>x</b> <sup>2</sup>	X	1	2	10	✓
m4.xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	4	15	✓
m4.2xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	4	15	✓
m4.4xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	8	30	✓
m4.10xlarge	10 Gigabit	X	<b>x</b> <sup>2</sup>	X	1	8	30	✓
m4.16xlarge	25 Gigabit	x	✓	X	1	8	30	✓
			1	R3				
r3.large	Moderate	X	<b>x</b> <sup>2</sup>	X	1	3	10	✓

Instance type	Baseline / Burst bandwidth (Gbps)	EFA	ENA	ENA Express	Network cards	Max. network interface s	IP addresses per interface	IPv6
r3.xlarge	Moderate	X	<b>x</b> <sup>2</sup>	X	1	4	15	✓
r3.2xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	4	15	✓
r3.4xlarge	High	X	<b>x</b> <sup>2</sup>	X	1	8	30	✓
r3.8xlarge	10 Gigabit	X	<b>x</b> <sup>2</sup>	x	1	8	30	✓
			ı	R4				
r4.large <sup>1</sup>	0.75 / 10.0	X	✓	x	1	3	10	✓
r4.xlarge <sup>1</sup>	1.25 / 10.0	X	✓	x	1	4	15	✓
r4.2xlarge <sup>1</sup>	2.5 / 10.0	X	✓	X	1	4	15	✓
r4.4xlarge <sup>1</sup>	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	✓
			•	Г1				
t1.micro	Very Low	X	X	X	1	2	2	X

### Note

<sup>&</sup>lt;sup>1</sup> 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 <u>instance</u> network bandwidth.

<sup>&</sup>lt;sup>2</sup> These instances support enhanced networking using the Intel 82599 VF interface.

#### **Amazon EBS specifications**

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

#### Important

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

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

Instance type	Baseline / Maximum bandwidth (Mbps)	Baseline / Maximum throughput (MB/s, 128 KiB I/O)	Baseline / Maximum IOPS (16 KiB I/O)	NVMe	EBS optimization 2
		А	.1		
a1.medium <sup>1</sup>	300.00 / 3500.00	37.50 / 437.50	2500.00 / 20000.00	✓	default
a1.large <sup>1</sup>	525.00 / 3500.00	65.62 / 437.50	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
a1.xlarge <sup>1</sup>	800.00 / 3500.00	100.00 / 437.50	6000.00 / 20000.00	✓	default
a1.2xlarge <sup>1</sup>	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
		C	1		
c1.xlarge	1000.00	125.00	8000.00	X	supported
		C	3		
c3.xlarge	500.00	62.50	4000.00	X	supported
c3.2xlarge	1000.00	125.00	8000.00	X	supported
c3.4xlarge	2000.00	250.00	16000.00	X	supported
		C	4		
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
		G	3		

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
g3.4xlarge	3500.00	437.50	20000.00	X	default
g3.8xlarge	7000.00	875.00	40000.00	X	default
g3.16xlarge	14000.00	1750.00	80000.00	X	default
		I.	2		
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
		M	1		
m1.large	500.00	62.50	4000.00	X	supported
m1.xlarge	1000.00	125.00	8000.00	X	supported
		M	2		
m2.2xlarge	500.00	62.50	4000.00	X	supported
m2.4xlarge	1000.00	125.00	8000.00	X	supported
		M	3		
m3.xlarge	500.00	62.50	4000.00	X	supported
m3.2xlarge	1000.00	125.00	8000.00	X	supported
		M	4		
m4.large	450.00	56.25	3600.00	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
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
		R	3		
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
		R	4		
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
		Т	1		



#### Note

<sup>1</sup> 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.

<sup>2</sup> 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	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
		C	.1		
c1.medium	1 x 350 GB	HDD		✓	
c1.xlarge	4 x 420 GB	HDD		✓	
		C	23		
c3.large	2 x 16 GB	SSD		✓	
c3.xlarge	2 x 40 GB	SSD		✓	
c3.2xlarge	2 x 80 GB	SSD		✓	
c3.4xlarge	2 x 160 GB	SSD		✓	
c3.8xlarge	2 x 320 GB	SSD		✓	
		ı	2		
i2.xlarge	1 x 800 GB	SSD		✓	

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Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
i2.2xlarge	2 x 800 GB	SSD		✓	
i2.4xlarge	4 x 800 GB	SSD		✓	
i2.8xlarge	8 x 800 GB	SSD		✓	
		M	11		
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		✓	
		M	12		
m2.xlarge	1 x 420 GB	HDD		✓	
m2.2xlarge	1 x 850 GB	HDD		✓	
m2.4xlarge	2 x 840 GB	HDD		✓	
		M	13		
m3.medium	1 x 4 GB	SSD		✓	
m3.large	1 x 32 GB	SSD		✓	
m3.xlarge	2 x 40 GB	SSD		✓	
m3.2xlarge	2 x 80 GB	SSD		✓	
		R	3		
r3.large	1 x 32 GB	SSD		✓	

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Instance type	Instance store volumes	Instance store type	100% random read IOPS / Write IOPS	Needs initializ ation <sup>1</sup>	TRIM support 2
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		✓	

<sup>&</sup>lt;sup>1</sup> Volumes attached to certain instances suffer a first-write penalty unless initialized. For more information, see Optimize disk performance for instance store volumes.

## **Security specifications**

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
			A1			
a1.medium	✓	Instance store not supported	X	x	X	X
a1.large	✓	Instance store not supported	X	x	X	X
a1.xlarge	✓	Instance store not supported	X	X	X	X

<sup>&</sup>lt;sup>2</sup> For more information, see <u>Instance store volume TRIM support</u>.

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
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
c3.8xlarge	✓	x	x	x	x	x
			C4			
c4.large	✓	Instance store not supported	X	X	x	X

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
c4.xlarge	✓	Instance store not supported	x	X	X	X
c4.2xlarge	✓	Instance store not supported	X	x	X	X
c4.4xlarge	✓	Instance store not supported	X	X	X	X
c4.8xlarge	✓	Instance store not supported	X	X	X	X
			G3			
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
			12			
i2.xlarge	✓	X	x	X	x	x

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
i2.2xlarge	✓	x	X	X	x	x
i2.4xlarge	✓	x	x	x	x	x
i2.8xlarge	✓	X	x	X	X	x
			M1			
m1.small	✓	X	x	X	X	x
m1.medium	✓	X	x	X	X	x
m1.large	✓	X	x	X	X	x
m1.xlarge	✓	x	x	x	x	x
			M2			
m2.xlarge	✓	x	x	x	x	x
m2.2xlarge	✓	x	X	x	x	x
m2.4xlarge	✓	x	x	x	x	x
			М3			
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			

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
m4.large	✓	Instance store not supported	x	X	X	x
m4.xlarge	✓	Instance store not supported	x	x	X	x
m4.2xlarge	✓	Instance store not supported	x	X	X	X
m4.4xlarge	✓	Instance store not supported	x	X	X	X
m4.10xlarge	✓	Instance store not supported	X	X	X	x
m4.16xlarge	<b>√</b>	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

Instance type	EBS encryptio n	Instance store encryptio n	Encryptio n in transit	AMD SEV-SNP	NitroTPM	Nitro Enclaves
r3.8xlarge	✓	X	X	X	X	X
			R4			
r4.large	✓	Instance store not supported	x	x	x	X
r4.xlarge	<b>√</b>	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 | C7i-flex
- Memory Optimized: R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i |
   R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | U-3tb1 | U-6tb1 | 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 | G3 | 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-m1ultra | Mac2-m2 | Mac2-m2pro | T1 | T2 | T3 | T3a | T4g

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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 | R8g | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | U7i-12tb | U7in-16tb | U7in-24tb | U7in-32tb | 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 | G3 | 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 | C7i-flex
- 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 | G3 | 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-m1ultra | Mac2-m2 | Mac2-m2pro | T1 | T2 | T3 | T3a | T4g

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Compute Optimized: C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i |
 C6id | C6in | C7a | C7g | C7gd | C7gn | C7i | C7i-flex

- Memory Optimized: R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5dn | R5n | R6a | R6g | R6gd | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | R8g | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | U-24tb1 | U7i-12tb | U7in-16tb | U7in-24tb | U7in-32tb | 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 | G3 | 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 | C6a | C6g | C6gn | C6i | C6in | C7g
- Memory Optimized: R5 | R5d | R5n | R6g | R6i | R7g | U-3tb1 | X1
- Storage Optimized: D2 | I3 | I3en | I4i
- Accelerated Computing: G4dn | Inf1

## Asia Pacific (Hyderabad) — ap-south-2

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

Africa (Cape Town) 388

- 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: 13 | 13en | 14i

### 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 | C6q | C6qd | C6qn | C6in
- Memory Optimized: R5 | R5d | R6g | R6gd | R7i | U-6tb1 | X2idn | X2iedn
- Storage Optimized: D3en | 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 | M6idn |
   M6in | 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 | C7i-flex
- 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

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- Storage Optimized: D2 | D3 | I2 | I3 | I3en | I4i | Is4gen
- 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 | M6q | M6qd | M6i | T2 | T3 | T4q
- 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 | U7in-16tb | 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 | G3 | I2 | M4 | R3 | R4

### Asia Pacific (Singapore) — ap-southeast-1

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

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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 | C7i-flex
- 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 | G3 | 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 | C7i-flex
- 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 | U7in-16tb | X1 | X2idn | X2iedn | X1e | z1d
- Storage Optimized: D2 | D3 | I2 | I3 | I3en | I4i | Im4gn | Is4gen
- Accelerated Computing: F1 | G3 | G4dn | G5 | Inf1 | Inf2 | P2 | P3
- **High Performance Computing:** Hpc6a
- Previous Generation: A1 | C1 | C3 | C4 | G3 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

## Asia Pacific (Tokyo) — ap-northeast-1

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

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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 | C7i-flex
- 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 | G3 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

## Canada (Central) — ca-central-1

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

- General Purpose: M4 | M5 | M5a | M5ad | M5d | M6a | M6g | M6gd | M6i | M6id | M6idn | M6in | M7g | M7i | M7i-flex | T2 | T3 | T3a | T4g
- Compute Optimized: C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g |
   C7i | C7i-flex
- 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 | G3 | 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

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• 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 | R8g | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-18tb1 | 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 | G3 | 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 | C7i-flex
- 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 | G3 | I2 | M1 | M2 | M3 | M4 | R3 | R4 | T1

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## Europe (London) — eu-west-2

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

General Purpose: M4 | M5 | M5a | M5ad | M5d | M6a | M6g | M6gd | M6i | M6id | M7g | M7i | M7i-flex | Mac1 | T2 | T3 | T3a | T4g

- Compute Optimized: C4 | C5 | C5a | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i | C6id | C6in | C7g |
   C7i | C7i-flex
- 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 | Inf2 | P3
- Previous Generation: C4 | G3 | M4 | R4

## Europe (Milan) — eu-south-1

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

- General Purpose: M5 | M5a | M5d | M6a | M6g | M6gd | M6i | T3 | T3a | T4g
- Compute Optimized: C5 | C5a | C5ad | C5d | C5n | C6g | C6gn | C6i | C6in | C7g
- Memory Optimized: R5 | R5a | R5b | R5d | R5dn | R5n | R6g | R6i | R7g | 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 | C7i | C7i-flex
- Memory Optimized: R4 | R5 | R5a | R5ad | R5d | R5dn | R5n | R6g | R6gd | R6i | R7i | U-6tb1 |
   U-9tb1 | X1 | X2idn | X2iedn

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- Storage Optimized: D2 | D3 | I3 | I3en | I4i | Im4gn | Is4gen
- Accelerated Computing: G4dn | Inf1 | Inf2
- 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 | C7i-flex
- Memory Optimized: R5 | R5d | R6g | R7a | R7g | R7gd | R7i | U-6tb1 | X2idn | X2iedn
- Storage Optimized: 13 | 13en
- 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 |
   C7i-flex
- 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 | Inf2 | 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

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- Compute Optimized: C5 | C5d | C6g | C6gd | C6in
- Memory Optimized: R5 | R5d | R6g | R6gd | 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 | M6q | M6qd | M6i | M7q | T3 | T4q
- 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: 13 | 13en | 14i
- Accelerated Computing: G5

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## South America (São Paulo) — sa-east-1

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

- General Purpose: M1 | M2 | M3 | M4 | M5 | M5a | M5ad | M5d | M5zn | M6a | M6g | M6gd | M6i |
   M6id | M7g | M7gd | M7i | M7i-flex | T1 | T2 | T3 | T3a | T4g
- Compute Optimized: C1 | C3 | C4 | C5 | C5a | C5ad | C5d | C5n | C6a | C6g | C6gd | C6gn | C6i |
   C6id | C6in | C7g | C7i | C7i-flex
- Memory Optimized: R3 | R4 | R5 | R5a | R5ad | R5b | R5d | R5n | R6g | R6gd | R6i | R7g | R7i |
   U-3tb1 | U-6tb1 | U-12tb1 | X1 | X2idn | X2iedn | X1e
- Storage Optimized: I3 | I3en | I4i
- Accelerated Computing: G4dn | G5 | Inf1 | Inf2
- Previous Generation: C1 | C3 | C4 | M1 | M2 | M3 | M4 | R3 | R4 | T1

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

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

- General Purpose: M5 | M5a | M5d | M5dn | M5n | M6g | M6gd | M6i | T3 | T3a | T4g
- Compute Optimized: C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6in
- Memory Optimized: R5 | R5a | R5d | R5dn | R5n | R6g | R6gd | R6i | R7i | U-6tb1 | U-9tb1 |
   U-24tb1 | X1 | X2idn | X2iedn
- Storage Optimized: 13 | 13en | 14i
- Accelerated Computing: G4dn | Inf1 | P3dn

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

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

- General Purpose: M5 | M5a | M5ad | M5d | M5dn | M5n | M6g | M6gd | M6i | M6id | M6idn | M6in |
   T2 | T3 | T3a | T4g
- Compute Optimized: C5 | C5a | C5d | C5n | C6g | C6gd | C6gn | C6i | C6id | C6in
- Memory Optimized: R5 | R5a | R5ad | R5d | R5dn | R5n | R6g | R6gd | R6i | R6id | R6idn | R6in |
   R7i | U-3tb1 | U-6tb1 | U-9tb1 | U-12tb1 | U-24tb1 | X1 | X1e | X2idn | X2iedn

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- Storage Optimized: D3 | I3 | I3en | I4i
- Accelerated Computing: F1 | G4dn | Inf1 | P2 | P3 | P3dn | P4d
- High Performance Computing: Hpc6a | Hpc6id | Hpc7a | Hpc7g

• Previous Generation: C4 | G3 | M4 | R4

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# 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.

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

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

## Nitro components

The following components are part of the Nitro System:

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

For more information, see AWS Nitro System.

## Network feature support

The following content summarizes key networking capabilities for each version of the Nitro System. Versions are shown in descending version release order. If you know the instance type family that your instance belongs to, you can expand the Specifications section and select your

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instance family. The Platform summary table for your instance family shows the Nitro version for your instance type in the **Hypervisor** column.

If you're not sure which instance family applies, see the Naming conventions section.



#### Note

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

#### Nitro v5

- Traffic Mirroring is not supported for this version.
- Up to 200 Gbps\* per network card.

#### Nitro v4

- Traffic Mirroring is not supported for this version.
- GPU accelerated and Trainium based instance types support up to 100 Gbps per network card for consistency. Other instance types support up to 170 Gbps<sup>\*</sup> per network card.
- Remote direct memory access (RDMA) write is available with EFA for p5.48xlarge instances.
- Supports ENA Express. For more information about ENA Express, including what specific instance types support it see Improve network performance with ENA Express on your EC2 instances in the Amazon EC2 User Guide.

#### Nitro v3

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

#### Nitro v2

Enhanced networking with Elastic Network Adapter (ENA).

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#### Traffic Mirroring.

## Virtualized instances

The following virtualized instances are built on the Nitro System:

#### Nitro v5

• Compute Optimized: C7gn

• Memory Optimized: R8g

High Performance Computing: Hpc7g

#### Nitro v4

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

#### Nitro v3

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

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

#### Nitro v2

General Purpose: M5 | M5a | M5ad | M5d | M6g | M6gd | T3 | T3a | T4g | A1

Compute Optimized: C5 | C5a | C5ad | C5d | C6g | C6gd

• Memory Optimized: R5 | R5a | R5ad | R5b | R5d | R6g | R6gd | X2gd | z1d

Accelerated Computing: G5g

• Previous Generation: A1

## **Bare metal instances**

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

#### Nitro v5

• Compute Optimized: C7gn

Memory Optimized: R8g

#### Nitro v4

- **General Purpose**: M6a | M6i | M6id | M6idn | M6in | M7a | M7g | M7gd | M7i
- **Compute Optimized**: C6a | C6i | C6id | C6in | C7a | C7g | C7gd | C7i
- Memory Optimized: R6a | R6i | R6idn | R6in | R6id | R7a | R7g | R7gd | R7i | R7iz | X2idn |
   X2iedn
- Storage Optimized: 14i

#### Nitro v3

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

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#### Nitro v2

General Purpose: M5 | M5d | M6g | M6gd | Mac1 | Mac2 | Mac2-m1ultra | Mac2-m2 | Mac2-m2pro | A1

• Compute Optimized: C5 | C5d | C6g | C6gd

Memory Optimized: R5 | R5b | R5d | R6g | R6gd | X2gd | z1d

• Storage Optimized: 13

Accelerated Computing: G5g

• Previous Generation: A1

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

## Nitro instance requirements

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

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

#### Linux

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

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

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

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

uname -r

Linux distribution	Minimum kernel version
Linux upstream	Kernel version 5.9
Amazon Linux 2	Kernel 4.14.186
Red Hat Enterprise Linux (RHEL)	RHEL 8.3 kernel 4.18.0-240.1.1.el8_3.ARCH
SUSE Linux Enterprise Server (SLES)	<ul> <li>SLE 12 SP4 kernel 4.12.14-95.99.3</li> <li>SLE 12 SP5 kernel 4.12.14-122.116.1</li> <li>SLE 15 kernel 4.12.14-150000.150.92.2</li> <li>SLE 15 SP1 kernel 4.12.14-150100.197 .114.2</li> <li>SLE 15 SP2 kernel 5.3.18-24.15.1</li> </ul>
Linux Ubuntu	20.04 kernel 5.4.0-1025-aws
DPDK	v20.11

Nitro instance requirements 404

Instance Types Amazon EC2



#### Note

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

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

#### Windows

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



#### Note

The following ENA Windows drivers are not supported:

ENA Windows: v2.2.0 or earlier

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

#### FreeBSD

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



#### Note

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

Nitro instance requirements 405

## **Linux instances with AWS Graviton processors**

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

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



### Note

AWS Graviton processors only support Linux operating systems.

# **Amazon EC2 instance type quotas**

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

#### Quotas

- On-Demand Instance quotas
- Spot Instance quotas
- Dedicated Host quotas

## **On-Demand Instance quotas**

The following table shows the maximum number of vCPUs that you can provision for On-Demand Instances. Amazon EC2 automatically increases your On-Demand Instance quotas based on your usage. You can also request a quota increase. For more information, see <a href="On-Demand Instance">On-Demand Instance</a> quotas in the Amazon EC2 User Guide.

Name	Default	Adjustable
Running On-Demand DL instances	0	<u>Yes</u>
Running On-Demand F instances	0	<u>Yes</u>
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	<u>Yes</u>
Running On-Demand Standard (A, C, D, H, I, M, R, T, Z) instances	5	<u>Yes</u>
Running On-Demand Trn instances	0	Yes

On-Demand Instance quotas 407

Name	Default	Adjustable
Running On-Demand X instances	0	<u>Yes</u>

# **Spot Instance quotas**

The following table shows the maximum number of vCPUs that you can provision for Spot Instances. Amazon EC2 automatically increases your Spot Instance quotas based on your usage. You can also request a quota increase. For more information, see <a href="Spot Instance quotas">Spot Instance quotas</a> in the Amazon EC2 User Guide.

Name	Default	Adjustable
All DL Spot Instance Requests	0	<u>Yes</u>
All F Spot Instance Requests	0	<u>Yes</u>
All G and VT Spot Instance Requests	0	<u>Yes</u>
All Inf Spot Instance Requests	0	Yes
All P4, P3 and P2 Spot Instance Requests	0	<u>Yes</u>
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	<u>Yes</u>

# **Dedicated Host quotas**

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

Spot Instance quotas 408

Name	Default	Adjustable
Running Dedicated a1 Hosts	0	Yes
Running Dedicated c3 Hosts	0	Yes
Running Dedicated c4 Hosts	0	Yes
Running Dedicated c5 Hosts	0	<u>Yes</u>
Running Dedicated c5a Hosts	0	<u>Yes</u>
Running Dedicated c5d Hosts	0	<u>Yes</u>
Running Dedicated c5n Hosts	0	<u>Yes</u>
Running Dedicated c6a Hosts	0	<u>Yes</u>
Running Dedicated c6g Hosts	0	<u>Yes</u>
Running Dedicated c6gd Hosts	0	<u>Yes</u>
Running Dedicated c6gn Hosts	0	<u>Yes</u>
Running Dedicated c6i Hosts	0	<u>Yes</u>
Running Dedicated c6id Hosts	0	<u>Yes</u>
Running Dedicated c6in Hosts	0	<u>Yes</u>
Running Dedicated c7a Hosts	0	<u>Yes</u>
Running Dedicated c7g Hosts	0	<u>Yes</u>
Running Dedicated c7gd Hosts	0	<u>Yes</u>
Running Dedicated c7gn Hosts	0	Yes
Running Dedicated c7i Hosts	0	Yes
Running Dedicated d2 Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated dl1 Hosts	0	Yes
Running Dedicated f1 Hosts	0	<u>Yes</u>
Running Dedicated g3 Hosts	0	<u>Yes</u>
Running Dedicated g3s Hosts	0	<u>Yes</u>
Running Dedicated g4ad Hosts	0	<u>Yes</u>
Running Dedicated g4dn Hosts	0	<u>Yes</u>
Running Dedicated g5 Hosts	0	<u>Yes</u>
Running Dedicated g5g Hosts	0	<u>Yes</u>
Running Dedicated g6 Hosts	0	Yes
Running Dedicated gr6 Hosts	0	<u>Yes</u>
Running Dedicated h1 Hosts	0	<u>Yes</u>
Running Dedicated i2 Hosts	0	<u>Yes</u>
Running Dedicated i3 Hosts	0	<u>Yes</u>
Running Dedicated i3en Hosts	0	<u>Yes</u>
Running Dedicated i4g Hosts	0	<u>Yes</u>
Running Dedicated i4i Hosts	0	<u>Yes</u>
Running Dedicated im4gn Hosts	0	<u>Yes</u>
Running Dedicated inf Hosts	0	Yes
Running Dedicated inf2 Hosts	0	Yes
Running Dedicated is4gen Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated m3 Hosts	0	<u>Yes</u>
Running Dedicated m4 Hosts	0	<u>Yes</u>
Running Dedicated m5 Hosts	0	<u>Yes</u>
Running Dedicated m5a Hosts	0	<u>Yes</u>
Running Dedicated m5ad Hosts	0	<u>Yes</u>
Running Dedicated m5d Hosts	0	<u>Yes</u>
Running Dedicated m5dn Hosts	0	<u>Yes</u>
Running Dedicated m5n Hosts	0	<u>Yes</u>
Running Dedicated m5zn Hosts	0	<u>Yes</u>
Running Dedicated m6a Hosts	0	<u>Yes</u>
Running Dedicated m6g Hosts	0	<u>Yes</u>
Running Dedicated m6gd Hosts	0	<u>Yes</u>
Running Dedicated m6i Hosts	0	<u>Yes</u>
Running Dedicated m6id Hosts	0	<u>Yes</u>
Running Dedicated m6idn Hosts	0	<u>Yes</u>
Running Dedicated m6in Hosts	0	<u>Yes</u>
Running Dedicated m7a Hosts	0	<u>Yes</u>
Running Dedicated m7g Hosts	0	Yes
Running Dedicated m7gd Hosts	0	Yes
Running Dedicated m7i Hosts	0	Yes

Name	Default	Adjustable
Running Dedicated mac1 Hosts	0	<u>Yes</u>
Running Dedicated mac2 Hosts	0	<u>Yes</u>
Running Dedicated mac2-m1ultra Hosts	0	<u>Yes</u>
Running Dedicated mac2-m2 Hosts	0	<u>Yes</u>
Running Dedicated mac2-m2pro Hosts	0	<u>Yes</u>
Running Dedicated p2 Hosts	0	<u>Yes</u>
Running Dedicated p3 Hosts	0	<u>Yes</u>
Running Dedicated p3dn Hosts	0	<u>Yes</u>
Running Dedicated p4d Hosts	0	<u>Yes</u>
Running Dedicated p5 Hosts	0	<u>Yes</u>
Running Dedicated r3 Hosts	0	<u>Yes</u>
Running Dedicated r4 Hosts	0	<u>Yes</u>
Running Dedicated r5 Hosts	0	<u>Yes</u>
Running Dedicated r5a Hosts	0	<u>Yes</u>
Running Dedicated r5ad Hosts	0	<u>Yes</u>
Running Dedicated r5b Hosts	0	<u>Yes</u>
Running Dedicated r5d Hosts	0	<u>Yes</u>
Running Dedicated r5dn Hosts	0	Yes
Running Dedicated r5n Hosts	0	Yes
Running Dedicated r6a Hosts	0	<u>Yes</u>

Name	Default	Adjustable
Running Dedicated r6g Hosts	0	Yes
Running Dedicated r6gd Hosts	0	Yes
Running Dedicated r6i Hosts	0	<u>Yes</u>
Running Dedicated r6id Hosts	0	<u>Yes</u>
Running Dedicated r6idn Hosts	0	<u>Yes</u>
Running Dedicated r6in Hosts	0	<u>Yes</u>
Running Dedicated r7a Hosts	0	<u>Yes</u>
Running Dedicated r7g Hosts	0	<u>Yes</u>
Running Dedicated r7gd Hosts	0	<u>Yes</u>
Running Dedicated r7i Hosts	0	<u>Yes</u>
Running Dedicated r7iz Hosts	0	<u>Yes</u>
Running Dedicated r8g Hosts	0	<u>Yes</u>
Running Dedicated t3 Hosts	0	<u>Yes</u>
Running Dedicated trn1 Hosts	0	<u>Yes</u>
Running Dedicated trn1n Hosts	0	<u>Yes</u>
Running Dedicated u-12tb1 Hosts	0	<u>Yes</u>
Running Dedicated u-18tb1 Hosts	0	<u>Yes</u>
Running Dedicated u-24tb1 Hosts	0	Yes
Running Dedicated u-3tb1 Hosts	0	Yes
Running Dedicated u-6tb1 Hosts	0	<u>Yes</u>

Name	Default	Adjustable
Running Dedicated u-9tb1 Hosts	0	Yes
Running Dedicated u7i-12tb Hosts	0	<u>Yes</u>
Running Dedicated u7in-16tb Hosts	0	<u>Yes</u>
Running Dedicated u7in-24tb Hosts	0	<u>Yes</u>
Running Dedicated u7in-32tb Hosts	0	<u>Yes</u>
Running Dedicated vt1 Hosts	0	Yes
Running Dedicated x1 Hosts	0	<u>Yes</u>
Running Dedicated x1e Hosts	0	Yes
Running Dedicated x2gd Hosts	0	<u>Yes</u>
Running Dedicated x2idn Hosts	0	<u>Yes</u>
Running Dedicated x2iedn Hosts	0	<u>Yes</u>
Running Dedicated x2iezn Hosts	0	Yes
Running Dedicated z1d Hosts	0	<u>Yes</u>

# **Document history for the Amazon EC2 Instance Types Guide**

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

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

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.

G6 and Gr6 instances

New high performance GPUbased instance types for deep learning inference and graphics-intensive applicati ons. April 4, 2024

C7gn bare metal instances

New c7gn.metal bare metal instance type powered by the latest generation AWS Graviton3E processors and the new AWS Nitro cards. March 26, 2024

C7gd, M7gd, and R7gd bare

metal instances

New bare metal instances.

March 6, 2024

DL2q instances

New instances that use
Qualcomm AI100 inference
accelerators, which feature
7th generation Qualcomm
Edge AI cores. These instances
can be used to cost-efficiently
deploy deep learning (DL)
workloads in the cloud or
validate performance and
accuracy of DL workloads
that will be deployed on
Qualcomm edge devices.

November 15, 2023

Mac2-m2 instances

New general purpose instance type that features Apple M2

processors.

October 25, 2023

R7i instances	New memory optimized instance types that feature 4th generation Intel Xeon Scalable processors.	October 16, 2023
C7a instances	New compute optimized instances powered by 4th generation AMD EPYC processors.	October 4, 2023
Mac2-m2pro instances	New general purpose instance type that features Apple M2 Pro processors.	September 18, 2023
C7i instances	New compute optimized instance types that feature 4th generation Intel Xeon Scalable processors.	September 14, 2023
R7a instances	New memory optimized instance types featuring 4th generation AMD EPYC 9R14 processors and up to 1536 GiB of system memory.	September 11, 2023
R7iz instances	New high-frequency and high memory instances powered by 4th generation Intel Xeon processors.	September 7, 2023
Hpc7a instances	New compute optimized instance types that feature 4th generation AMD EPYC processors. These instances support up to 300 Gbps networking bandwidth, and up to 192 CPU cores with up to 768 GB of system memory.	August 17, 2023

M7a instances	New general purpose instances powered by 4th generation AMD EPYC processors.	August 15, 2023
M7i-flex instances	New general purpose instances that offer a balance of compute, memory, and network resources for a broad spectrum of general purpose applications. They deliver a baseline CPU performance of 40 percent with the ability to deliver up to 100 percent CPU performance for 95 percent of the time over a 24-hour period.	August 2, 2023
M7i instances	New general purpose instance types that feature 4th generation Intel Xeon Scalable processors.	August 2, 2023
R7gd instances	New memory optimized instances featuring the latest AWS Graviton3 processors.	July 28, 2023
M7gd instances	New general purpose instances featuring the latest AWS Graviton3 processors.	July 28, 2023
C7gd instances	New compute optimized instances featuring the latest AWS Graviton3 processors.	July 28, 2023

P5 instances	New accelerated computing instances that feature 8 NVIDIA H100 GPUs with 640 GB high-bandwidth GPU memory, 3rd generation AMD EPYC processors, and 2 TB system memory.	July 26, 2023
Hpc7g instances	New high-performance computing instances powered by AWS Graviton3E processor s that provide up to 35 percent higher vectorinstruction 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
<u>I4g instances</u>	New storage optimized instances that features the AWS Graviton2 processor and AWS Nitro SSDs.	May 9, 2023
Trn1n instances	New accelerated computing instances optimized for machine learning training powered by AWS Trainium accelerators.	April 13, 2023

Inf2 instances	New instances featuring AWS Inferentia2 accelerators, the latest machine learning chip designed by AWS.	April 13, 2023
Hpc6id instance	New memory optimized instance featuring 3rd generation Intel Xeon Scalable processors (Ice Lake).	November 29, 2022
R6in and R6idn instances	New memory optimized instances for network-i ntensive 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
<u>Trn1 instances</u>	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
<u>I4i instances</u>	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
<u>C6i instances</u>	New compute optimized instances featuring Intel Xeon Scalable processors (Ice Lake).	October 28, 2021
<u>DL1 instances</u>	New accelerated computing instances featuring Habana Gaudi accelerators and Intel Xeon Platinum processors (Cascade Lake).	October 26, 2021
VT1 instances	New accelerated computing instances that use Xilinx Alveo U30 media accelerators and are designed for live video transcoding workloads.	September 13, 2021

M6i instances	New general purpose instances featuring third generation Intel Xeon Scalable processors (Ice Lake).	August 16, 2021
High memory virtualized instances	Virtualized high memory instances purpose-built to run large in-memory databases. The new types are u-6tb1.56xlarge, u-6tb1.11 2xlarge, u-9tb1.112xlarge, and u-12tb1.112xlarge.	May 11, 2021
X2gd instances	New memory optimized instances featuring an AWS Graviton2 processor based on 64-bit Arm architecture.	March 16, 2021
C6gn instances	New computed optimized instances featuring an AWS Graviton2 processor based on 64-bit Arm architecture. These instances can utilize up to 100 Gbps of network bandwidth.	December 18, 2020
G4ad instances	New instances powered by AMD Radeon Pro V520 GPUs and AMD 2nd Generation EPYC processors.	December 9, 2020
D3, D3en, M5zn, and R5b instances	New instance types built on the Nitro System.	December 1, 2020
Mac1 instances	New instances built on Apple Mac mini computers that support running macOS workloads on Amazon EC2.	November 30, 2020

P4d instances	New accelerated computing instances that provide a high-performance platform for machine learning and HPC workloads.	November 2, 2020
T4g instances	New general purpose instances powered by AWS Graviton2 processors, which are based on 64-bit Arm Neoverse cores and custom silicon designed by AWS for optimized performance and cost.	September 14, 2020
C5ad instances	New compute optimized instances featuring second-ge neration AMD EPYC processor s.	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	June 10, 2020

cost.

C5a instances	New compute optimized instances featuring second-ge neration AMD EPYC processor s.	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
<u>I3en instances</u>	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 Armbased processors.	November 26, 2018
R5a instances	New instances featuring AMD EPYC processors.	November 6, 2018
M5a instances	New instances featuring AMD EPYC processors.	November 6, 2018
T3 instances	New instances featuring AMD EPYC processors.	August 21, 2018
z1d instances	New memory optimized instances.	July 25, 2018
R5 and R5d instances	New memory optimized instances.	July 25, 2018
X1e instances	New memory optimized instances.	November 28, 2017
M5 instances	New general purpose instances.	November 28, 2017
H1 instances	New storage optimized instances.	November 28, 2017
C5 instances	New compute optimized instances.	November 6, 2017
P3 instances	New accelerated computing instances.	October 25, 2017
G3 instances	New accelerated computing instances.	July 13, 2017

F1 instances	New accelerated computing instances.	April 19, 2017
<u>13 instances</u>	New storage optimized instances.	February 23, 2017
R4 instances	New memory optimized instances.	November 30, 2016
P2 instances	New accelerated computing instances.	September 29, 2016
X1 instances	New memory optimized instances.	May 18, 2016
M4 instances	New general purpose instances.	June 11, 2015
D2 instances	New storage optimized instances.	March 24, 2015
C4 instances	New compute optimized instances.	January 11, 2015
T2 instances	New general purpose instances.	June 30, 2014