

# AWS Requirements

This document is intended to explain the Requirements of an Amazon Web Services (AWS) Instance in order to run different Nextthink Appliances considering our hardware requirements.

## Introduction

AWS uses Elastic Compute Cloud (EC2) which allows users to manage and launch *instances*, which are their virtual machines in the cloud. EC2 allows flexibility and scalability for your environments, which means you can modify and improve the Instance resources easily.

There are different Instance Types and categorized in five main groups:

- **General Purpose** (T2, M4, M3)
- **Compute Optimized** (C4, C3)
- **Memory Optimized** (X1, R4, R3)
- **Accelerated Computing Instances** (P2, G2, F1)
- **Storage Optimized** (I2, D2)

These instances are oriented to different use cases, and they charge you for the usage depending on the balance each has. For example, memory-optimized instances will charge you less money compared to other instances when running applications that have a high demand of RAM, such as in-memory databases.

For more information and full details on the instance types, please visit: <https://aws.amazon.com/ec2/instance-types/>

## Nextthink Requirements

The table below shows the EC2 instance types that are a closest fit to the official hardware requirements for installation on premises.

### Portal Appliance:

Max devices	Max complexity	Memory	Data disk size	Details (90 days)	CPU cores	Minimal Amazon AWS requirements
5k	2000	12 GB	120 GB	120 GB	2	r5.large
10k	2000	13 GB	200 GB	240 GB	4	r5.xlarge
20k	4000	17 GB	400 GB	440 GB	4	r5.xlarge
50k	12,000	23 GB	600 GB	900 GB	6	r5d.2xlarge
100k	40,000	41 GB	1.2 TB	1.4 TB	6	r5d.2xlarge
150k	60,000	59 GB	2 TB	2 TB	8	r5d.2xlarge

### Engine Appliance:

Max Events	Max devices / with Web & Cloud	Max entities	Minimal Amazon AWS requirements
20M	500 / 500	20	c5.large with HDD sc1
50M	3k / 2k	100	c5.2xlarge with HDD sc1
50M	5k / 3-4k	250	c5.2xlarge with HDD sc1
100M	10k / 6-8k	100	c5.4xlarge with SSD gp2
100M	10k / 6-8k	500	c5.4xlarge with SSD gp2
200M	10k / 8k	100	c5.4xlarge with SSD gp2
200M	10k / 8k	500	c5.4xlarge with SSD gp2
>200M	ask	ask	ask

### Special considerations:

- Many AWS EC2 Instance types far exceed the minimum hardware requirements, but some slightly lack CPU requirements. Customers may evaluate the instance that works the best for them, always considering that choosing an instance lacking number of CPU cores might present slight slowness or small performance issues.
- Ideally, we recommend to use the instance types that far exceed our hardware requirements, to avoid performance penalties or experience slowness when running investigations.
- Regarding the IOPS / Disk throughput, the bigger the hard disk, the higher the IOPS. As specified on [this page](#), Amazon defines an IOPS balance that is filled at 100 IOPS for a 33.33 GB disk and increase by 3 IOPS / GB for general purpose SSD. For example, a disk of 500 GB will acquire  $(500-33.33)*3 + 100 = 1500$  IO per seconds and be able to burst up to 3000 IOPS during IO intensive processes, such as the backup of the Engine database.