**AWS Service Limits**

The following tables provide the default limits for AWS services for an AWS account. Unless otherwise noted, each limit is region-specific. Many services contain limits that cannot be changed. For more information about the limits for a specific service, see the documentation for that service.

[AWS Trusted Advisor](https://aws.amazon.com/premiumsupport/trustedadvisor/) offers a Service Limits check (in the Performance category) that displays your usage and limits for some aspects of some services. For more information, see [Service Limits Check Questions](https://aws.amazon.com/premiumsupport/ta-faqs/#service-limits-check-questions) in the Trusted Advisor FAQs.

You can take the following steps to request an increase for limits. These increases are not granted immediately, so it may take a couple of days for your increase to become effective.

**To request a limit increase**

1. Open the [AWS Support Center](https://console.aws.amazon.com/support/home#/) page, sign in if necessary, and choose **Create Case**.
2. For **Regarding**, choose **Service Limit Increase**.
3. Complete **Limit Type**, **Use Case Description**, and **Contact method**. If this request is urgent, choose **Phone** as the method of contact instead of **Web**.
4. Choose **Submit**.

**Amazon API Gateway Limits**

The following limits apply to configuring and running an API in Amazon API Gateway and can be increased upon request to optimize performances of a deployed API in Amazon API Gateway.

|  |  |
| --- | --- |
| **Resource or Operation** | **Default Limit** |
| Throttle rate per account per region | 10000 request per second (rps) with an additional burst capacity provided by the [token bucket algorithm](https://en.wikipedia.org/wiki/Token_bucket), using a maximum bucket capacity of 5000 requests. |
| APIs (or RestApis) per account per region | 60 |
| API keys per account per region | 500 |
| Custom authorizers per API | 10 |
| Client certificates per account per region | 60 |
| Documentation parts per API | 2000 |
| Resources per API | 300 |
| Stages per API | 10 |
| Usage plans per account per region | 300 |
| Usage plans per API key | 10 |
| VPC links per account per region | 5 |

All of the per API limits can only be increased on specific APIs.

For more information about these limits, see [Limits in Amazon API Gateway](http://docs.aws.amazon.com/apigateway/latest/developerguide/limits.html) in the *API Gateway Developer Guide*.

**Application Auto Scaling Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Scalable targets | 500 |
| Scaling policies per scalable target | 50 |
| Step adjustments per scaling policy | 20 |

**AWS Application Discovery Service Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Inactive agents heartbeating but not collecting data | 10,000 |
| Active agents sending data to the service | 250 |
| Total collected data for all agents, per day | 10 GB |
| Data storage duration before being purged | 90 days |

**Amazon AppStream 2.0 Limits**

**Default Limits Per Region Per Account**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Stacks | 5 |
| Fleets | 5 |
| Streaming instances | 5 **\*** |
| Images | 5 |
| Image builders | 5 **†** |
| Users | 5 |

**\*** This is the total limit across all instance families. Certain instance families have additional limits. For the Graphics Desktop and Graphics Pro instance families, the default limit is 0. For the Graphics Design instance family, the default limit is 2.

**†** This is the total limit across all instance families. Certain instance families have additional limits. For the Graphics Desktop and Graphics Pro instance families, the default limit is 0. For the Graphics Design instance family, the default limit is 1.

**AWS AppSync Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum number of APIs per region | 25 per account |
| Maximum number of API keys | 50 per API |
| Maximum schema document size | 5 MB |
| Maximum GraphQL query execution time | 10 seconds |
| Maximum request/response mapping template size | 64 KB |
| Maximum subscription payload size | 128 KB |
| Maximum number of iterations in #foreach...#end loop in mapping templates | 1000 |

**Amazon Athena Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of concurrent queries | 5 |
| Query timeout | 30 minutes |

For information about limits for databases, tables, and partitions, see [AWS Glue Limits](https://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html#limits_glue).

**AWS Auto Scaling Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Scaling plans | 100 |
| Target tracking configurations per scaling instruction | 10 |
| Target tracking configurations per scaling plan | 500 |

**Auto Scaling Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Launch configurations per region | 200 |
| Auto Scaling groups per region | 200 |
| Scaling policies per Auto Scaling group | 50 |
| Scheduled actions per Auto Scaling group | 125 |
| Lifecycle hooks per Auto Scaling group | 50 |
| SNS topics per Auto Scaling group | 10 |
| Load balancers per Auto Scaling group | 50 |
| Target groups per Auto Scaling group | 50 |
| Step adjustments per scaling policy | 20 |

For more information about these limits, see [Amazon EC2 Auto Scaling Limits](http://docs.aws.amazon.com/autoscaling/latest/userguide/as-account-limits.html) in the *Amazon EC2 Auto Scaling User Guide*.

**AWS Batch Limits**

|  |  |
| --- | --- |
| **Item** | **Default Limit** |
| Maximum number of job queues | 20 |
| Maximum number of compute environments per job queue | 3 |

For more information about these limits, see [Service Limits](http://docs.aws.amazon.com/batch/latest/userguide/service_limits.html) in the *AWS Batch User Guide*.

**AWS Certificate Manager (ACM) Limits**

|  |  |
| --- | --- |
| **Item** | **Default Limit** |
| Number of ACM certificates | 100 |
| Number of ACM certificates per year (last 365 days) | Twice your account limit |
| Number of imported certificates | 100 |
| Number of imported certificates per year (lsat 365 days) | Twice your account limit |
| Number of domain names per ACM certificate | 10 |
| Number of private CAs | 10 |
| Number of private certificates per CA | 50,000 |

For more information about these limits, see [Limits](http://docs.aws.amazon.com/acm/latest/userguide/acm-limits.html) in the *AWS Certificate Manager User Guide*.

**AWS Certificate Manager Private Certificate Authority (ACM PCA) Limits**

|  |  |
| --- | --- |
| **Item** | **Default Limit** |
| Number of private CAs | 10 |
| Number of private certificates per CA | 50,000 |

For more information about these limits, see [Limits](http://docs.aws.amazon.com/acm/latest/userguide/acm-limits.html) in the *AWS Certificate Manager User Guide*.

**AWS Cloud9 Limits**

|  |  |
| --- | --- |
| **Item** | **Default Limit** |
| Maximum number of AWS Cloud9 EC2 development environments | * 20 per IAM user * 100 per AWS account |
| Maximum number of SSH environments | * 10 per IAM user * 100 per AWS account |
| Maximum number of members in an environment | 8 |
| Maximum number of environments open at the same time | 10 total per IAM user, regardless of environment type (EC2 or SSH) |

For more information about these limits, see [Limits](https://docs.aws.amazon.com/cloud9/latest/user-guide/limits.html) in the *AWS Cloud9 User Guide*.

**AWS CloudFormation Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Stacks | 200 |
| Stack sets | 20 |
| Stack instances per stack set | 500 |

For more information about these limits, see [AWS CloudFormation Limits](http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/cloudformation-limits.html) in the *AWS CloudFormation User Guide*.

**Amazon CloudFront Limits**

**General Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Data transfer rate per distribution | 40 Gbps |
| Requests per second per distribution | 100,000 |
| Web distributions per account | 200 |
| RTMP distributions per account | 100 |
| Alternate domain names (CNAMEs) per distribution | 100 |
| Origins per distribution | 25 |
| Cache behaviors per distribution | 25 |
| Whitelisted headers per cache behavior | 10 |
| Whitelisted cookies per cache behavior | 10 |
| SSL certificates per account when serving HTTPS requests using dedicated IP addresses (no limit when serving HTTPS requests using SNI) | 2 |
| Custom headers that you can have Amazon CloudFront forward to the origin | 10 name–value pairs |
| Whitelisted query strings per cache behavior | For more information, see [Configuring CloudFront to Cache Based on Query String Parameters](http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/QueryStringParameters.html) in the*Amazon CloudFront Developer Guide*. |
| Response timeout per origin | For more information, see [Response Timeout](http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/RequestAndResponseBehaviorCustomOrigin.html#request-custom-request-timeout) in the*Amazon CloudFront Developer Guide*. |

**Lambda@Edge Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Distributions per AWS account that you can create triggers for | 25 |
| Triggers per distribution | 25 |
| Requests per second | 10,000 |
| Concurrent executions | 1,000 |

For more information about these limits, see [Limits](http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/cloudfront-limits.html) in the *Amazon CloudFront Developer Guide*.

**AWS CloudHSM Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Clusters | 4 |
| HSMs | 6 |

For more information about these limits, see [Limits](http://docs.aws.amazon.com/cloudhsm/latest/userguide/limits.html) in the *AWS CloudHSM User Guide*.

**AWS CloudHSM Classic Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| HSM appliances | 3 |
| High-availability partition groups | 20 |

For more information about these limits, see [Limits](http://docs.aws.amazon.com/cloudhsm/classic/userguide/limits.html) in the *AWS CloudHSM Classic User Guide*.

**Amazon CloudSearch Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Partitions | 10 |
| Search instances | 50 |

For more information about these limits, see [Understanding Amazon CloudSearch Limits](http://docs.aws.amazon.com/cloudsearch/latest/developerguide/limits.html) in the *Amazon CloudSearch Developer Guide*.

**AWS CloudTrail Limits**

CloudTrail has no increaseable limits. For more information, see [Limits in AWS CloudTrail](http://docs.aws.amazon.com/awscloudtrail/latest/userguide/WhatIsCloudTrail-Limits.html).

**Amazon CloudWatch Limits**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Comments** |
| Alarms | 10 per month per customer for free. 5000 per region per account. | For the 5000 per region per account limit, you can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-amazon-cloudwatch). |
| [DescribeAlarms](http://docs.aws.amazon.com/AmazonCloudWatch/latest/APIReference/API_DescribeAlarms.html) | 9 transactions per second (TPS) | The maximum number of operation requests you can make per second without being throttled.  You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-amazon-cloudwatch). |
| [GetMetricData](http://docs.aws.amazon.com/AmazonCloudWatch/latest/APIReference/API_GetMetricData.html) | 50 transactions per second (TPS).  180,000 Datapoints Per Second (DPS) if the StartTime used in the API request is less than or equal to three hours from current time. 90,000 DPS if the StartTime is more than three hours from current time. | The maximum number of operation requests you can make per second without being throttled.  This is the maximum number of datapoints you can request per second using one or more API calls without being throttled.  You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-amazon-cloudwatch) for both of these limits. |
| [GetMetricStatistics](http://docs.aws.amazon.com/AmazonCloudWatch/latest/APIReference/API_GetMetricStatistics.html) | 400 transactions per second (TPS) | The maximum number of operation requests you can make per second without being throttled.  You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-amazon-cloudwatch). |
| [ListMetrics](http://docs.aws.amazon.com/AmazonCloudWatch/latest/APIReference/API_ListMetrics.html) | 25 transactions per second (TPS) | The maximum number of operation requests you can make per second without being throttled.  You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-amazon-cloudwatch). |
| [PutMetricAlarm](http://docs.aws.amazon.com/AmazonCloudWatch/latest/APIReference/API_PutMetricAlarm.html) | 3 transactions per second (TPS) | The maximum number of operation requests you can make per second without being throttled.  You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-amazon-cloudwatch). |
| [PutMetricData](http://docs.aws.amazon.com/AmazonCloudWatch/latest/APIReference/API_PutMetricData.html) | 150 transactions per second (TPS) | The maximum number of operation requests you can make per second without being throttled.  You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-amazon-cloudwatch). |

For more information about these and other CloudWatch limits, see [CloudWatch Limits](http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/cloudwatch_limits.html) in the *Amazon CloudWatch User Guide*.

**Amazon CloudWatch Events Limits**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Comments** |
| Invocations | 750 per second (after 750 invocations, the invocations are throttled; that is, they still happen but they are delayed). If the invocation of a target fails due to a problem with the target service, account throttling, etc., new attempts are made for up to 24 hours for a specific invocation. | You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-cloudwatch-events). |
| Rules | 100 per region per account | You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-cloudwatch-events).  Before requesting a limit increase, examine your rules. You may have multiple rules each matching to very specific events. Consider broadening their scope by using fewer identifiers in your [Events and Event Patterns](http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/CloudWatchEventsandEventPatterns.html). In addition, a rule can invoke several targets each time it matches an event. Consider adding more targets to your rules. |
| [PutEvents](http://docs.aws.amazon.com/AmazonCloudWatchEvents/latest/APIReference/API_PutEvents.html) | 10 entries per request and 400 requests per second. Each request can be up to 256 KB in size. | You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-cloudwatch-events). |

For more information about these and other CloudWatch Events limits, see [CloudWatch Events Limits](http://docs.aws.amazon.com/AmazonCloudWatch/latest/events/cloudwatch_limits_cwe.html) in the*Amazon CloudWatch Events User Guide*.

**Amazon CloudWatch Logs Limits**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Comments** |
| [CreateLogGroup](http://docs.aws.amazon.com/AmazonCloudWatchLogs/latest/APIReference/API_CreateLogGroup.html) | 5000 log groups/account/Region | If you exceed your log group limit, you get a ResourceLimitExceededexception.  You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-cloudwatch-logs). |
| [DescribeLogStreams](http://docs.aws.amazon.com/AmazonCloudWatchLogs/latest/APIReference/API_DescribeLogStreams.html) | 5 transactions per second (TPS)/account/Region | If you experience frequent throttling, you can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-cloudwatch-logs). |
| [FilterLogEvents](http://docs.aws.amazon.com/AmazonCloudWatchLogs/latest/APIReference/API_FilterLogEvents.html) | 5 transactions per second (TPS)/account/region | This limit can be changed only in special circumstances. If you experience frequent throttling, contact AWS Support. |
| [GetLogEvents](http://docs.aws.amazon.com/AmazonCloudWatchLogs/latest/APIReference/API_GetLogEvents.html) | 10 transactions per second (TPS)/account/Region | We recommend subscriptions if you are continuously processing new data. If you need historical data, we recommend exporting your data to Amazon S3. This limit can be changed only in special circumstances. If you experience frequent throttling, contact AWS Support. |
| [PutLogEvents](http://docs.aws.amazon.com/AmazonCloudWatchLogs/latest/APIReference/API_PutLogEvents.html) | 1500 transactions per second per account per Region, except for the following Regions where the limit is 800 transactions per second per account per Region: ap-south-1, ap-northeast-1, ap-northeast-2, ap-southeast-1, ap-southeast-2, eu-central-1, eu-west-2, sa-east-1, us-east-2, and us-west-1. | You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-cloudwatch-logs).  The maximum batch size of a PutLogEvents request is 1MB.  5 requests per second per log stream. Additional requests are throttled. This limit cannot be changed. |

For more information about these and other CloudWatch Logs limits, see [CloudWatch Logs Limits](http://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/cloudwatch_limits_cwl.html) in the*Amazon CloudWatch Logs User Guide*.

**AWS CodeBuild Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum number of build projects | 1,000 |
| Maximum number of concurrent running builds \* | 20 |

\* Limits for the maximum number of concurrent running builds vary, depending on the compute type. For some compute types, the default is 20. To request a higher concurrent build limit or if you get a "Cannot have more than X active builds for the account" error, contact AWS support.

For more information about these limits, see [Limits for AWS CodeBuild](http://docs.aws.amazon.com/codebuild/latest/userguide/limits.html) in the *AWS CodeBuild User Guide*.

**AWS CodeCommit Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of repositories | 1,000 per AWS account |

For more information about these limits, see [Limits in AWS CodeCommit](http://docs.aws.amazon.com/codecommit/latest/userguide/limits.html) in the *AWS CodeCommit User Guide*.

**AWS CodeDeploy Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum number of applications associated with an AWS account in a single region | 100 |
| Maximum number of concurrent deployments associated with an AWS account | 100 |
| Maximum number of deployment groups associated with a single application | 100 |
| Maximum number of instances in a single deployment | 500 |
| Maximum number of event notification triggers in a deployment group | 10 |

For more information about these limits, see [Limits in AWS CodeDeploy](http://docs.aws.amazon.com/codedeploy/latest/userguide/limits.html) in the *AWS CodeDeploy User Guide*.

**AWS CodePipeline Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum number of pipelines per region in an AWS account | US East (N. Virginia) (us-east-1): 40  US West (Oregon) (us-west-2): 60  EU (Ireland) (eu-west-1): 60  All other supported regions: 20 |
| Number of stages in a pipeline | Minimum of 2, maxi­mum of 10 |
| Number of actions in a stage | Minimum of 1, maxi­mum of 20 |
| Maximum number of parallel actions in a stage | Maximum of 10 |
| Maximum number of sequential actions in a stage | Maximum of 10 |
| Number of custom actions per region in an AWS account | 50 |
| Maximum size of artifacts in a source stage | Artifacts stored in Amazon S3 buckets: 2 GB  Artifacts stored in AWS CodeCommit or GitHub repositories: 1 GB  Exception: If you are using Amazon EBS to deploy applications, the maximum artifact size is always 512 MB.  Exception: If you are using AWS CloudFormation to deploy applications, the maximum artifact size is always 256 MB. |

It may take up to two weeks to process requests for a limit increase.

For more information about these limits, see [Limits in AWS CodePipeline](http://docs.aws.amazon.com/codepipeline/latest/userguide/limits.html) in the *AWS CodePipeline User Guide*.

**Amazon Cognito User Pools Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum number of apps per user pool | 25 |
| Maximum number of user pools per account | 60 |
| Maximum number of user import jobs per user pool | 50 |
| Maximum number of identity providers per user pool | 25 |
| Maximum number of resource servers per user pool | 20 |
| Maximum number of scopes per user pool | 20 |

For information about additional documented limits, see [Limits in Amazon Cognito](http://docs.aws.amazon.com/cognito/latest/developerguide/limits.html) in the *Amazon Cognito Developer Guide*.

**Amazon Cognito Federated Identities Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum number of identity pools per account | 60 |

For information about additional documented limits, see [Limits in Amazon Cognito](http://docs.aws.amazon.com/cognito/latest/developerguide/limits.html) in the *Amazon Cognito Developer Guide*.

**Amazon Cognito Sync Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum number of datasets per identity | 20 |
| Maximum number of records per dataset | 1024 |
| Maximum size of a single dataset | 1 MB |

For information about additional documented limits, see [Limits in Amazon Cognito](http://docs.aws.amazon.com/cognito/latest/developerguide/limits.html) in the *Amazon Cognito Developer Guide*.

**Amazon Comprehend Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Transactions per second for the DetectDominantLanguage, DetectEntities, DetectKeyPhrases, and DetectSentiment operations | 20 |
| Transactions per second for the BatchDetectDominantLanguage, BatchDetectEntities,BatchDetectKeyPhrases, and BatchDetectSentiment operations | 10 |
| Transactions per second for the StartTopicsDetectionJob operation | 1 |
| Transactions per second for the DescribeTopicsDetectionJob andListTopicDetectionJobs operations | 10 |
| Maximum concurrent jobs | 10 |

You can request an increase for any of the limits using the [Amazon Comprehend service limits increase form](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-comprehend).

For information about additional documented limits, see [Guidelines and Limits](https://docs.aws.amazon.com/comprehend/latest/dg/guidelines-and-limits.html) in the *Amazon Comprehend Developer Guide*.

**AWS Config Limits**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Notes** |
| Number of AWS Config rules per region in your account | 50 | You can [request a limit increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-config-service). |

**Amazon Connect Limits**

|  |  |
| --- | --- |
| **Item** | **Default limit** |
| Amazon Connect instances per account | 2 |
| Users per instance | 500 |
| Phone numbers per instance | 10 |
| Queues per instance | 50 |
| Queues per routing profile | 50 |
| Routing profiles per instance | 100 |
| Hours of operation per instance | 100 |
| Quick connects per instance | 100 |
| Prompts per instance | 500 |
| Agent status per instance | 50 |
| Security profiles per instance | 100 |
| Contact flows per instance | 100 |
| Groups per level | 50 |
| Reports per instance | 500 |
| Scheduled reports per instance | 50 |
| Concurrent active calls per instance | 10 |

These are the default limits for new Amazon Connect instances. You can create two instances per AWS account to start, but if you need more instances it is easy to request an increase. You can also request an increase for any of the limits using the [Amazon Connect service limits increase form](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-connect). You need to be signed in to your AWS account to access the form.

**AWS Data Pipeline Limits**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Limit** | **Adjustable** |
| Number of pipelines | 100 | Yes |
| Number of objects per pipeline | 100 | Yes |
| Number of active instances per object | 5 | Yes |
| Number of fields per object | 50 | No |
| Number of UTF8 bytes per field name or identifier | 256 | No |
| Number of UTF8 bytes per field | 10,240 | No |
| Number of UTF8 bytes per object | 15,360 (including field names) | No |
| Rate of creation of an instance from an object | 1 per 5 minutes | No |
| Retries of a pipeline activity | 5 per task | No |
| Minimum delay between retry attempts | 2 minutes | No |
| Minimum scheduling interval | 15 minutes | No |
| Maximum number of roll-ups into a single object | 32 | No |
| Maximum number of EC2 instances per Ec2Resource object | 1 | No |

For additional limits, see [AWS Data Pipeline Limits](http://docs.aws.amazon.com/datapipeline/latest/DeveloperGuide/dp-limits.html) in the *AWS Data Pipeline Developer Guide*.

**AWS Database Migration Service Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Replication instances | 20 |
| Total amount of storage | 6 TB |
| Replication subnet groups | 20 |
| Subnets per replication subnet group | 20 |
| Endpoints | 100 |
| Tasks | 200 |
| Endpoints per instance | 20 |

**AWS Device Farm Limits**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Comments** |
| App file size you can upload | 4 GB |  |
| Number of devices that AWS Device Farm can test during a run | 5 | This limit can be increased to 100 upon request. |
| Number of devices you can include in a test run | None |  |
| Number of runs you can schedule | None |  |
| Duration of a remote access session | 60 minutes |  |

**AWS Direct Connect Limits**

For more information about these limits, see [AWS Direct Connect Limits](http://docs.aws.amazon.com/directconnect/latest/UserGuide/Welcome.html#directconnect_limits) in the *AWS Direct Connect User Guide*.

**AWS Directory Service Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| AD Connector directories | 10 |
| AWS Directory Service for Microsoft Active Directory (Enterprise Edition) directories | 10 |
| Simple AD directories | 10 |
| Manual snapshots | 5 per Microsoft AD |
| Manual snapshots | 5 per Simple AD |

For information about additional documented limits, including limits on Amazon Cloud Directory, see [AWS Directory Service Limits](http://docs.aws.amazon.com/directoryservice/latest/admin-guide/limits.html) in the *AWS Directory Service Admin Guide*.

**Amazon DynamoDB Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| US East (N. Virginia) Region:  Maximum capacity units per table or global secondary index | 40,000 read capacity units and 40,000 write capacity units |
| US East (N. Virginia) Region:  Maximum capacity units per account | 80,000 read capacity units and 80,000 write capacity units |
| All other regions:  Maximum capacity units per table or global secondary index | 10,000 read capacity units and 10,000 write capacity units |
| All other regions:  Maximum capacity units per account | 20,000 read capacity units and 20,000 write capacity units |
| Maximum number of tables | 256 |

For more information about these limits, see [Limits in Amazon DynamoDB](http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Limits.html) in the *Amazon DynamoDB Developer Guide*.

**AWS Elastic Beanstalk Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Applications | 75 |
| Application Versions | 1000 |
| Environments | 200 |

**Amazon Elastic Block Store (Amazon EBS) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of EBS snapshots | 10,000 |
| Concurrent snapshots allowed for a single volume | 5 for io1, gp2, magnetic; 1 for st1, sc1 |
| Concurrent snapshot copy requests to a single destination region | 5 |
| Total volume storage of General Purpose SSD (gp2) volumes | 100 TiB |
| Total volume storage of Provisioned IOPS SSD (io1) volumes | 100 TiB |
| Total volume storage of Throughput Optimized HDD (st1) | 300 TiB |
| Total volume storage of Cold HDD (sc1) | 300 TiB |
| Total volume storage of Magnetic volumes (standard) | 20 TiB |
| Total provisioned IOPS | 200,000 |

For more information about these limits, see [Amazon EC2 Service Limits](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-resource-limits.html) in the *Amazon EC2 User Guide for Linux Instances*.

**Amazon Elastic Compute Cloud (Amazon EC2) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Elastic IP addresses for EC2-Classic | 5 |
| Security groups for EC2-Classic per instance | 500 |
| Rules per security group for EC2-Classic | 100 |
| Key pairs | 5,000 |
| Placement groups | 500 |
| Throttle on the emails that can be sent from your Amazon EC2 account | Throttle applied |
| On-Demand Instances | Limits vary depending on instance type. For more information, see[How many instances can I run in Amazon EC2](https://aws.amazon.com/ec2/faqs/#How_many_instances_can_I_run_in_Amazon_EC2). |
| Spot Instances | Limits vary depending on instance type, region, and account. For more information, see [Spot Instance Limits](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-spot-limits.html). |
| Reserved Instances | 20 Reserved Instances per Availability Zone, per month, plus 20 regional Reserved Instances. For more information, see [Reserved Instance Limits](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-reserved-instances.html#ri-limits). |
| Dedicated Hosts | Up to two Dedicated Hosts per instance family, per region can be allocated. |
| AMI Copies | Destination regions are limited to 50 concurrent AMI copies at a time, with no more than 25 of those coming from a single source region. |
| Launch Templates | 1,000 launch templates per region and 10,000 versions per launch template. |

For information about related limits for EC2-VPC, see [Amazon Virtual Private Cloud (Amazon VPC) Limits](https://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html#limits_vpc).

For information about viewing your current limits, see [Amazon EC2 Service Limits](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-resource-limits.html) in the *Amazon EC2 User Guide for Linux Instances*.

**Amazon Elastic Container Registry (Amazon ECR) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum number of repositories per account | 1,000 |
| Maximum number of images per repository | 1,000 |

For information about additional documented limits, see [Amazon ECR Service Limits](http://docs.aws.amazon.com/AmazonECR/latest/userguide/service_limits.html) in the *Amazon Elastic Container Registry User Guide*.

**Amazon Elastic Container Service (Amazon ECS) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of clusters per region per account | 1000 |
| Number of container instances per cluster | 1000 |
| Number of services per cluster | 500 |
| Number of tasks using the EC2 launch type per service (the desired count) | 1000 |
| Number of tasks using the Fargate launch type, per region, per account | 20 |
| Number of public IP addresses for tasks using the Fargate launch type | 20 |

For information about additional documented limits, see [Amazon ECS Service Limits](http://docs.aws.amazon.com/AmazonECS/latest/developerguide/service_limits.html) in the *Amazon Elastic Container Service Developer Guide*.

**Amazon Elastic File System Limits**

Following are the limits for Amazon EFS that can be increased by contacting AWS Support.

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Total throughput per file system for all connected clients | US East (Ohio) Region – 3 GB/s  US East (N. Virginia) Region – 3 GB/s  US West (N. California) Region – 1 GB/s  US West (Oregon) Region – 3 GB/s  EU (Frankfurt) Region – 1 GB/s  EU (Ireland) Region – 3 GB/s  Asia Pacific (Sydney) Region – 3 GB/s |

For more information about these limits, see [Amazon EFS Limits](http://docs.aws.amazon.com/efs/latest/ug/limits.html) in the *Amazon Elastic File System User Guide*.

**Elastic Load Balancing Limits**

Elastic Load Balancing supports three types of load balancers: Application Load Balancers, Network Load Balancers, and Classic Load Balancers.

**Application Load Balancers**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Load balancers per region | 20 **†** |
| Target groups per region | 3000 |
| Listeners per load balancer | 50 |
| Targets per load balancer | 1000 |
| Subnets per Availability Zone per load balancer | 1 |
| Security groups per load balancer | 5 |
| Rules per load balancer (not counting default rules) | 100 |
| Certificates per load balancer (not counting default certificates) | 25 |
| Number of times a target can be registered per load balancer | 100 |
| Load balancers per target group | 1 |
| Targets per target group | 1000 |

**†** This limit includes both your Application Load Balancers and your Classic Load Balancers. This limit can be increased upon request.

**Network Load Balancers**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Network Load Balancers per region | 20 |
| Target groups per region | 3000 **\*** |
| Listeners per load balancer | 50 |
| Subnets per Availability Zone per load balancer | 1 |
| Targets per load balancer per Availability Zone | 200 |
| Load balancers per target group | 1 |

**\*** This limit is shared by target groups for your Application Load Balancers and Network Load Balancers.

**Classic Load Balancers**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Load balancers per region | 20 **†** |
| Listeners per load balancer | 100 |
| Security groups per load balancer | 5 |
| Subnets per Availability Zone per load balancer | 1 |

**†** This limit includes both your Application Load Balancers and your Classic Load Balancers. This limit can be increased upon request.

**Amazon Elastic Transcoder Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Pipelines per region | 4 |
| User-defined presets | 50 |
| Maximum number of jobs processed simultaneously by each pipeline | US East (N. Virginia) Region – 20  US West (N. California) Region – 12  US West (Oregon) Region – 20  Asia Pacific (Mumbai) Region – 12  Asia Pacific (Singapore) Region – 12  Asia Pacific (Sydney) Region – 12  Asia Pacific (Tokyo) Region – 12  EU (Ireland) Region – 20 |

It may take up to two weeks to process requests for a limit increase.

For more information about these limits, see [Amazon Elastic Transcoder](http://docs.aws.amazon.com/elastictranscoder/latest/developerguide/limits.html) limits in the *Amazon Elastic Transcoder Developer Guide*.

**Amazon ElastiCache Limits**

For information on ElastiCache terminology, see [ElastiCache Components and Features](http://docs.aws.amazon.com/AmazonElastiCache/latest/UserGuide/WhatIs.Components.html).

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Description** |
| Nodes per region | 100 | The maximum number of nodes across all clusters in a region. This limit applies to both your reserved and nonreserved nodes within the given region. You can have up to 100 reserved nodes and 100 nonreserved nodes in the same region. |
| Nodes per cluster (Memcached) | 20 | The maximum number of nodes in an individual Memcached cluster. |
| Nodes per shard (Redis) | 6 | The maximum number of nodes in an individual Redis shard (node group). One node is the read/write Primary. All other nodes are read-only Replicas. |
| Shards per Cluster (Redis cluster mode disabled) | 1 | The maximum number of shards (node groups) in a Redis (cluster mode disabled) cluster. |
| Shards per Cluster (Redis cluster mode enabled) | 15 | The maximum number of shards (node groups) in a Redis (cluster mode enabled) cluster. |
| Parameter groups per region | 20 | The maximum number of parameters groups you can create in a region. |
| Security groups per region | 50 | The maximum number of security groups you can create in a region. |
| Subnet groups per region | 50 | The maximum number of subnet groups you can create in a region. |
| Subnets per subnet group | 20 | The maximum number of subnets you can define for a subnet group. |

These limits are global limits per customer account. To exceed these limits, make your request using the [ElastiCache Node request form](https://aws.amazon.com/contact-us/elasticache-node-limit-request/).

**Amazon Elasticsearch Service Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of Amazon ES instances per cluster | 20 (except for T2 instance types, which have a maximum of 10).  **Note**  The default limit is 20 instances per domain. To request an increase up to 100 instances per domain, create a case with the [AWS Support Center](https://console.aws.amazon.com/support/home#/). |

**AWS Firewall Manager Limits**

AWS Firewall Manager has default limits on the number of entities per account. You can [request an increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-waf)in these limits.

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Firewall Manager policies per AWS account | 20 |
| Rule groups per Firewall Manager policy | 1 |
| Tags to specified include or exclude per Firewall Manager policy | 8 |
| Rule groups per AWS Firewall Manager administrator account | 3 |

The following limits related to Firewall Manager can't be changed.

|  |  |
| --- | --- |
| **Resource** | **Limit** |
| Accounts per AWS Organization | 2500 |
| Rules per rule group | 10 |

**Amazon GameLift Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Aliases | 20 |
| Fleets | 20 |
| Builds | 1000 |
| Total size of builds | 100 GB |
| Log upload size per game session | 200 MB |
| On-demand instances | Per instance type: limits vary.  Per account: 20 instances max, regardless of instance type.  For more information, see [Scaling Amazon Elastic Compute Cloud (Amazon EC2) Instances](http://docs.aws.amazon.com/gamelift/latest/developerguide/gamelift-ec2-instances.html) for Amazon GameLift. |
| Server processes per instance | GameLift SDK v2.x: 1  GameLift SDK v3.x and up: 50 |
| Player sessions per game session | 200 |
| Matchmakers per account | 100 |
| VPC peering connections | For limits on active and pending VPC peering connections, see [Amazon Virtual Private Cloud (Amazon VPC) Limits](https://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html#limits_vpc).  The expiry time for an Amazon GameLift VPC peering authorization is 24 hours. |

**Amazon Glacier Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of vaults per account | 1000 |
| Number of provisioned capacity units | 2 |

**AWS Glue Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of databases per account | 10,000 |
| Number of tables per database | 100,000 |
| Number of partitions per table | 1,000,000 |
| Number of table versions per table | 100,000 |
| Number of tables per account | 1,000,000 |
| Number of partitions per account | 10,000,000 |
| Number of table verions per account | 1,000,000 |
| Number of connections per account | 1,000 |
| Number of crawlers per account | 25 |
| Number of jobs per account | 25 |
| Number of triggers per account | 25 |
| Number of concurrent job runs per account | 30 |
| Number of concurrent job runs per job | 3 |
| Number of jobs per trigger | 10 |
| Number of development endpoints per account | 2 |
| Maximum DPUs used by a development endpoint at one time | 5 |
| Maximum DPUs used by a role at one time | 100 |

**AWS Greengrass Limits**

**AWS Greengrass Cloud API Limits**

|  |  |
| --- | --- |
| **Description** | **Limit** |
| Maximum number of AWS IoT devices in a group. | 200 |
| Maximum number of Lambda functions in a group. | 200 |
| Maximum number of resources per Lambda function. | 10 |
| Maximum number of resources per group. | 50 |
| Maximum number of transactions per second (TPS) on the AWS Greengrass API. | 30 |
| Maximum number of subscriptions per AWS Greengrass group. | 1000 |
| Maximum number of subscriptions that specify Cloud as the source per AWS Greengrass group. | 50 |
| Maximum length of a Core thing name. | 124 bytes of UTF-8 encoded characters. |

**AWS Greengrass core Limits**

|  |  |
| --- | --- |
| **Description** | **Limit** |
| Maximum number of routing table entries that specify "Cloud" as the source. | 50 (matches AWS IoT subscription limit) |
| Maximum size of messages sent by an AWS IoT device. | 128 KB (matches AWS IoT message size limit) |
| Maximum message queue size in the Greengrass core router. | 2.5 MB |
| Maximum length of a topic string | 256 bytes of UTF-8 encoded characters. |
| Maximum number of forward slashes '/' in a topic or topic filter. | 7 |
| Minimum disk space needed to run the Greengrass core software | 128 MB |
| Minimum RAM to run the Greengrass core software | 128 MB |
| Automatic IP detection should not be used when: | * IP address changes are frequent. * Interruption of the Greengrass core service is unacceptable. * The Greengrass core is multi-homed or Greengrass devices cannot reliably determine which IP address to use. * Reporting of Greengrass core IP addresses to the cloud may raise security concerns. |

The Greengrass core software provides a service to automatically detect the IP address(es) of your Greengrass core devices. It sends this information to the AWS Greengrass cloud service and allows AWS IoT devices to download the IP address of the Greengrass core they need to connect to. This feature should not be used in the following circumstances:

* The IP address of a Greengrass core device changes frequently.
* The Greengrass core device must always be available to AWS IoT devices in it's group.
* The Greengrass core has multiple IP addresses and an AWS IoT device is unable to reliably determine which address to use.
* Sending IP addresses to the cloud raises security concerns.

**Amazon GuardDuty Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Detectors | 1 |
| Trusted IP sets | 1 |
| Threat intel sets | 6 |
| GuardDuty member accounts | 1000 |
| GuardDuty finding retention time | 90 days |

For more information, see the [Amazon GuardDuty User Guide](http://docs.aws.amazon.com/guardduty/latest/ug/).

**AWS Identity and Access Management (IAM) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Customer managed policies in an AWS account | 1500 |
| Groups in an AWS account | 300 |
| Roles in an AWS account | 1000 |
| Users in an AWS account | 5000 (If you need to add a large number of users, consider using [temporary security credentials](http://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_temp.html).) |
| Virtual MFA devices (assigned or unassigned) in an AWS account | Equal to the user quota for the account |
| Instance profiles in an AWS account | 1000 |
| Server certificates stored in an AWS account | 20 |

For more information about these limits, see [Limitations on IAM Entities and Objects](http://docs.aws.amazon.com/IAM/latest/UserGuide/LimitationsOnEntities.html) in the *IAM User Guide*.

**AWS Import/Export Limits**

**AWS Snowball (Snowball)**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Comments** |
| Snowball | 1 | To increase this limit, contact AWS Support. |

**Amazon Inspector Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Running agents | 500 |
| Assessment runs | 50,000 |
| Assessment templates | 500 |
| Assessment targets | 50 |

For more information, see the [Amazon Inspector User Guide](https://docs.aws.amazon.com/inspector/latest/userguide/inspector_introduction.html).

**AWS IoT Limits**

**Thing Limits**

|  |  |
| --- | --- |
| **Resource** | **Limit** |
| Thing name size | 128 bytes of UTF-8 encoded characters. This limit applies for both the thing registry and Thing Shadow services. |
| Maximum number of thing attributes for a thing with a thing type | 50 |
| Maximum number of thing attribute for a thing without a thing type | 3 |
| Number of thing types that can be associated with a thing | 1 |
| Maximum number of thing types in an AWS account | Unlimited |

**Message Broker Limits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Resource** | **Description** | **Limit** | **Adjustable** |
| Maximum concurrent client connections per account | The maximum number of concurrent connections allowed per account. | 500,000 | [Yes](https://console.aws.amazon.com/support/v1#/case/create?issueType=service-limit-increase&limitType=service-code-iot) |
| Connect requests per second per account | AWS IoT limits an account to a maximum number of MQTTCONNECT requests per second. | 500 | [Yes](https://console.aws.amazon.com/support/v1#/case/create?issueType=service-limit-increase&limitType=service-code-iot) |
| Connect requests per second per client ID | AWS IoT limits MQTT CONNECT requests from the sameaccountId and clientId to 1 MQTT CONNECT operation per second. | 1 | No |
| Subscriptions per account | AWS IoT limits an account to a maximum number of subscriptions across all active connections. | 500,000 | [Yes](https://console.aws.amazon.com/support/v1#/case/create?issueType=service-limit-increase&limitType=service-code-iot) |
| Subscriptions per second per account | AWS IoT limits an account to a maximum number of subscriptions per second. For example, if there are two MQTT SUBSCRIBE requests within a second with 3 subscriptions (topic filters) each, AWS IoT counts those as 6 subscriptions towards this limit. | 500 | [Yes](https://console.aws.amazon.com/support/v1#/case/create?issueType=service-limit-increase&limitType=service-code-iot) |
| Subscriptions per connection | AWS IoT supports 50 subscriptions per connection. Subscription requests on the same connection in excess of this amount may be rejected by AWS IoT and the connection will be closed. Clients should validate the SUBACK message to ensure that their subscription requests have been successfully processed. | 50 | No |
| Publish requests per second per connection | AWS IoT limits each client connection to a maximum number of inbound and outbound publish requests per second. Publish requests exceeding that limit will be discarded. | 100 | No |
| Inbound publish requests per second per account | Inbound publish requests count for all the messages that AWS IoT processes before routing the messages to the subscribed clients or the rules engine. For example, a single message published on $aws/things/*device*/shadow/update topic can result in publishing three additional messages to$aws/things/*device*/shadow/update/accepted,$aws/things/*device*/shadow/update/documents, and$aws/things/*device*/shadow/delta topics. In this case, AWS IoT counts those as 4 inbound publish requests towards this limit. However, a single message to an unreserved topic like a/bis counted only as a single inbound publish request. | 10,000 | [Yes](https://console.aws.amazon.com/support/v1#/case/create?issueType=service-limit-increase&limitType=service-code-iot) |
| Outbound publish requests per second per account | Outbound publish requests count for every message that resulted in matching a client's subscription or matching a rules engine subscription. For example, two clients are subscribed to topic filter a/b and a rule is subscribed to topic filter a/#. An inbound publish requests on topic a/b results in a total of 3 outbound publish requests. | 20,000 | [Yes](https://console.aws.amazon.com/support/v1#/case/create?issueType=service-limit-increase&limitType=service-code-iot) |
| Throughput per second per connection | Data received or sent over a client connection is processed at a maximum throughput rate. Data exceeding the maximum throughput will be delayed in processing. | 512 KiB | No |
| Maximum inbound unacknowledged QoS 1 publish requests | AWS IoT limits the number of unacknowledged inbound publish requests per client. When this limit is reached, no new publish requests are accepted from this client until a PUBACK message is returned by the server. | 100 | No |
| Maximum outbound unacknowledged QoS 1publish requests | AWS IoT limits the number of unacknowledged outbound publish requests per client. When this limit is reached, no new publish requests are sent to the client until the client acknowledges the publish requests. | 100 | No |
| Maximum retry interval for delivering QoS 1 messages | AWS IoT will retry delivery of unacknowledged quality-of-service 1 (QoS 1) publish requests to a client for up to one hour. If AWS IoT does not receive a PUBACK message from the client after one hour, it will drop the publish requests. | 1 hour | No |

**Protocol Limits**

|  |  |
| --- | --- |
| **Resource** | **Description** |
| Connection inactivity (keep-alive interval) | For MQTT (or MQTT over WebSockets) connections, a client can request a keep-alive interval between 30 - 1200 seconds as part of the MQTT CONNECT message. AWS IoT starts the keep-alive timer for a client when sending CONNACK in response to the CONNECTmessage. This timer is reset whenever AWS IoT receives a PUBLISH, SUBSCRIBE, PING, or PUBACK message from the client. AWS IoT will disconnect a client whose keep-alive timer has reached 1.5x the specified keep-alive interval (i.e., by a factor of 1.5).The default keep-alive interval is 1200 seconds. If a client requests a keep-alive interval of zero, the default keep-alive interval will be used. If a client requests a keep-alive interval greater than 1200 seconds, the default keep-alive interval will be used. If a client requests a keep-alive interval shorter than 30 seconds but greater than zero, the server treats the client as though it requested a keep-alive interval of 30 seconds. |
| WebSocket connection duration | WebSocket connections are limited to 24 hours. If the limit is exceeded, the WebSocket connection is automatically closed when an attempt is made to send a message by the client or server. |
| Maximum subscriptions per subscribe request | A single SUBSCRIBE request is limited a maximum of eight subscriptions. |
| Message size | The payload for every publish request is limited to 128 KB. The AWS IoT service rejects publish and connect requests larger than this size. |
| Client ID size | 128 bytes of UTF-8 encoded characters. |
| Restricted client ID prefix | $ is reserved for AWS IoT generated client IDs. |
| Topic size | The topic passed to the AWS IoT when sending a publish request is limited to 256 bytes of UTF-8 encoded characters. |
| Restricted topic prefix | Topics beginning with $ are reserved by AWS IoT and are not supported for publishing and subscribing except for using the specific topic names defined by AWS IoT services (i.e., Thing Shadow). |
| Maximum number of slashes in topic and topic filter | A topic in a publish or subscribe request is limited to 7 forward slashes (/). |

**Device Shadow Limits**

|  |  |
| --- | --- |
| Maximum depth of JSON device state documents | The maximum number of levels in the desired or reported section of the JSON device state document is 5. For example:  "desired": {  "one": {  "two": {  "three": {  "four": {  "five":{  }  }  }  }  }  } |
| Maximum number of in-flight, unacknowledged messages per thing | The Thing Shadows service supports up to 10 in-flight unacknowledged messages per thing. When this limit is reached, all new shadow requests are rejected with a 429 error code. |
| Maximum number of JSON objects per AWS account | There is no limit on the number of JSON objects per AWS account. |
| Maximum size of a JSON state document | 8 KB. |
| Maximum size of a thing name | 128 bytes of UTF-8 encoded characters. |
| Shadow lifetime | A thing shadow is deleted by AWS IoT up to six months after the creating account is deleted or per customer request. For operational purposes, AWS IoT service backups are kept for 6 months |
| Maximum number of shadows in an AWS account | Unlimited |
| Requests per second per thing | The Thing Shadows service supports up to 20 requests per second per thing. Note that this limit is per thing and not per API. |

**Security and Identity Limits**

|  |  |
| --- | --- |
| Maximum number of CA certificates with the same subject field allowed per AWS account per region | 10 |
| Maximum number of policies that can be attached to a certificate or Amazon Cognito identity | 10 |
| Maximum number of named policy versions | 5 |
| Maximum policy document size | 2048 characters (excluding white space) |
| Maximum number of device certificates that can be registered per second | 15 |

**Throttling Limits**

|  |  |
| --- | --- |
| **API** | **Transaction per Second** |
| AcceptCertificateTransfer | 10 |
| AttachPrincipalPolicy | 15 |
| AttachThingPrincipal | 15 |
| CancelCertificateTransfer | 10 |
| CreateCertificateFromCsr | 15 |
| CreatePolicy | 10 |
| CreatePolicyVersion | 10 |
| CreateThing | 15 |
| CreateThingType | 15 |
| DeleteCertificate | 10 |
| DeleteCACertificate | 10 |
| DeletePolicy | 10 |
| DeletePolicyVersion | 10 |
| DeleteThing | 15 |
| DeleteThingType | 15 |
| DeprecateThingType | 15 |
| DescribeCertificate | 10 |
| DescribeCACertificate | 10 |
| DescribeThing | 10 |
| DescribeThingType | 10 |
| DetachThingPrincipal | 15 |
| DetachPrincipalPolicy | 15 |
| DeleteRegistrationCode | 10 |
| GetPolicy | 10 |
| GetPolicyVersion | 15 |
| GetRegistrationCode | 10 |
| ListCACertificates | 10 |
| ListCertificates | 10 |
| ListCertificatesByCA | 10 |
| ListOutgoingCertificates | 10 |
| ListPolicies | 10 |
| ListPolicyPrincipals | 10 |
| ListPolicyVersions | 10 |
| ListPrincipalPolicies | 15 |
| ListPrincipalThings | 10 |
| ListThings | 10 |
| ListThingPrincipals | 10 |
| ListThingTypes | 10 |
| RegisterCertificate | 10 |
| RegisterCACertificate | 10 |
| RejectCertificateTransfer | 10 |
| SetDefaultPolicyVersion | 10 |
| TransferCertificate | 10 |
| UpdateCertificate | 10 |
| UpdateCACertificate | 10 |
| UpdateThing | 10 |

**AWS IoT Rules Engine Limits**

|  |  |
| --- | --- |
| Maximum number of rules per AWS account | 1000 |
| Actions per rule | A maximum of 10 actions can be defined per rule. |
| Rule size | Up to 256 KB of UTF-8 encoded characters (including white space). |

**AWS IoT Job Limits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Resource** | **Min** | **Max** | **Note** |
| JobId | 1 character | 64 characters | The JobId length must not exceed 64 characters. |
| Document | N/A | 32768 bytes | The maximum size of a document that can be sent to an AWS IoT device is 32 KB. |
| DocumentSource | N/A | 1350 characters | The maximum job document source size is 1350 characters. |
| Description | N/A | 2028 characters | The maximum job description size is 2028 characters. |
| Targets | 1 | 100 | The number of targets a job can have. |
| ExpiresInSec | 60 seconds | 3600 seconds | The lifetime of pre-signed URLs must be configured greater than 60 seconds and less than 1 hour. |
| Comment | N/A | 2028 characters | The maximum comment size is 2028 characters. |
| MaxResults | 1 | 250 | The maximum list result per page is 250. |
| MaximumJobExecutionsPerMinute | 1 | 1000 | Configures the rollout speed for a job. |
| Active snapshot jobs | 0 | 100 | The maximum number of active snapshot jobs is 100 (irrespective of the number of active continuous jobs). |
| Active continuous jobs | 0 | 100 | The maximum number of active continuous jobs is 100 (irrespective of the number of active snapshot jobs). |
| Job document variable substitution | 0 | 10 | Up to 10 variables substitutions, including the presign URL, are allowed in a job document. |
| Data retention | N/A | 90 days | Job data and job execution data will be purged after 90 days. |
| StatusDetail map key size | 1 character | 128 characters |  |
| StatusDetail map value size | 1 character | 128 characters |  |
| Job management APIs | N/A | 30 TPS | The AWS IoT [Job Management and Control APIs](http://docs.aws.amazon.com/iot/latest/developerguide/jobs-api.html#jobs-http-api) have a maximum of 30 transactions per second (TPS). |
| Job messaging APIs | N/A | 200 MPS | The AWS IoT [Jobs Device MQTT and HTTPS APIs](http://docs.aws.amazon.com/iot/latest/developerguide/jobs-api.html#jobs-mqtt-api) have a maximum of 200 messages per second (MPS). |

**AWS IoT Bulk Thing Registration Limits**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Limit** | **Note** |
| Registration task termination | 30 days | Any pending/uncompleted bulk registration tasks are terminated after 30 days. |
| Data retention policy | 30 days | Once the associated bulk registration task has completed (which can be long lived), bulk Thing registration related data is permanently deleted after 30 days. |
| Allowed registration tasks | 1 | For any given AWS account, only one bulk registration task can run at a time. |
| Maximum line length | 256K | Each line in an [Amazon S3 input JSON file](http://docs.aws.amazon.com/iot/latest/developerguide/bulk-provisioning.html) cannot exceed 256K in length. |

**AWS Key Management Service (AWS KMS) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Customer Master Keys (CMKs) | 1000 |
| Aliases | 1100 |
| Grants per CMK | 2500 |
| Grants for a given principal per CMK | 500 |
| Requests per second | Varies by API operation; see [Limits](http://docs.aws.amazon.com/kms/latest/developerguide/limits.html) in the *AWS Key Management Service Developer Guide*. |

All limits in the preceding table apply per region and per AWS account.

For more information about these limits, see [Limits](http://docs.aws.amazon.com/kms/latest/developerguide/limits.html) in the *AWS Key Management Service Developer Guide*.

**Amazon Kinesis Data Firehose Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Delivery streams per region | 50 |
| Delivery stream capacity for US East (N. Virginia), US West (Oregon), and EU (Ireland) † | 2,000 transactions/second  5,000 records/second  5 MB/second |
| Delivery stream capacity for other Regions where Kinesis Data Firehose is available † | 1,000 transactions/second  1,000 records/second  1 MB/second |

† The three capacity limits scale proportionally. For example, if you increase the throughput limit to 2 MB/second in Asia Pacific (Singapore), the other limits increase to 2,000 transactions/second and 2,000 records/second.

For more information about these limits, see [Amazon Kinesis Data Firehose Limits](http://docs.aws.amazon.com/firehose/latest/dev/limits.html) in the *Amazon Kinesis Data Firehose Developer Guide*.

**Amazon Kinesis Data Streams Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Shards per region | US East (N. Virginia) Region – 500  US West (Oregon) Region – 500  EU (Ireland) Region – 500  All other supported regions – 200 |

For more information about these limits, see [Amazon Kinesis Data Streams Limits](http://docs.aws.amazon.com/streams/latest/dev/service-sizes-and-limits.html) in the *Amazon Kinesis Data Streams Developer Guide*.

**Amazon Kinesis Data Analytics Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Kinesis Processing Units (KPUs) | US East (N. Virginia) Region – 8  US West (Oregon) Region – 8  EU (Ireland) Region – 8 |
| Input Parallelism | 64 input streams |
| Applications | 50 |

For more information about these limits, see [Limits](http://docs.aws.amazon.com/kinesisanalytics/latest/dev/limits.html) in the *Amazon Kinesis Data Analytics Developer Guide*.

**Amazon Kinesis Video Streams Limits**

The limits below are either soft [s], which can be upgraded by submitting a support ticket, or hard [h], which cannot be increased.

**Control Plane API limits**

The following section describes limits for control-plane APIs.

When an account-level Request limit is reached, a ClientLimitExceededException is thrown.

When an account-level Streams limit is reached, or a stream-level limit is reached, a StreamLimitExceededException is thrown.

**Control Plane API limits**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **API** | **Account Limit: Request** | **Account Limit: Streams** | **Stream-level limit** | **Relevant Exceptions and Notes** |
| **CreateStream** | 50 TPS [s] | 100 streams per account [s] | 5 TPS [h] | Devices, CLIs, SDK-driven access and the console can all invoke this API. Only one API call succeeds if the stream doesn’t already exist. |
| **DescribeStream** | 300 TPS [h] | N/A | 5 TPS [h] |  |
| **UpdateStream** | 50 TPS [h] | N/A | 5 TPS [h] |  |
| **ListStreams** | 300 TPS [h] | N/A | 5 TPS [h] |  |
| **DeleteStream** | 50 TPS [h] | N/A | 5 TPS [h] |  |
| **GetDataEndpoint** | 300 TPS [h] | N/A | 5 TPS [h] | When combined with account limit, this implies a maximum of 60 streams can be Put to and Read from (with 4 consumers). |

**Data Plane API limits**

The following section describes limits for control-plane APIs.

When a stream-level limit is exceeded, a StreamLimitExceededException is thrown.

When a connection-level limit is reached, a ConnectionLimitExceededException is thrown.

The following errors or acks are thrown when a fragment-level limit is reached:

* A MIN\_FRAGMENT\_DURATION\_REACHED ack is returned for a fragment below the minumum duration.
* A MAX\_FRAGMENT\_DURATION\_REACHED ack is returned for a fragment above the maximum duration.
* A MAX\_FRAGMENT\_SIZE ack is returned for a fragment above the maximum data size.
* A FragmentLimitExceeded exception is thrown if a fragment limit is reached in a GetMediaForFragmentList operation.

**Data Plane API limits**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **API** | **Stream-level limit** | **Connection-level limit** | **Bandwidth limit** | **Fragment-level limit** | **Relevant Exceptions and Notes** |
| **PutMedia** | 5 TPS [h] | 1 [s] | 12.5 MB/second, or 100 Mbps [s] | * Minimum fragment duration: 1 second [h] * Maximum fragment duration: 10 seconds [h] * Maximum fragment size: 50 MB [h] | A typical PutMedia request will contain data for several seconds, resulting in a lower TPS per stream. In the case of multiple concurrent connections that exceed limits, the last connection is accepted. |
| **GetMedia** | 5 TPS [h] | 3 [s] | 25 MB/s or 200 Mbps [s] | N/A | Only three clients can concurrently receive content from the media stream at any moment of time. Further client connections are rejected. A unique consuming client shouldn’t need more than 2 or 3 TPS, since once the connection is established, we anticipate that the application will read continuously.  If a typical fragment is approximately 5 MB, this limit will mean ~75 MB/ sec per Kinesis video stream. Such a stream would have an outgoing bit rate of 2x the streams' maximum incoming bit rate. |
| **ListFragments** | 5 TPS [h] | 5 [s] | N/A | N/A | Five fragment-based consuming applications can concurrently list fragments based on processing requirements. |
| **GetMediaForFragmentList** | 5 TPS [h] | 5 [s] | 25 MB/s or 200 Mbps [s] | Maximum number of fragments: 1000 [h] | Five fragment-based consuming applications can concurrently get media. Further connections are rejected. |

**AWS Lambda Limits**

|  |  |
| --- | --- |
| **Resource** | **Limit** |
| Concurrent executions | 1000 |

For more information about these limits, see [AWS Lambda Limits](http://docs.aws.amazon.com/lambda/latest/dg/limits.html) in the *AWS Lambda Developer Guide*.

AWS Lambda dynamically scales capacity in response to increased traffic, subject to your account's concurrent execution limit. For more information, see [Managing Concurrency](http://docs.aws.amazon.com/lambda/latest/dg/concurrent-executions.html). To handle a burst in traffic, Lambda immediately increases your concurrently executing functions by a predetermined amount, dependent on which region it's executed (see table below).

If the default **Immediate Concurrency Increase** value, as noted in the table below, is not sufficient to accommodate the traffic surge, Lambda continues to increase the number of concurrent function executions by 500 per minute until your account safety limit has been reached or the number of concurrently executing functions is sufficient to successfully process the increased load.

|  |  |
| --- | --- |
| **Region** | **Immediate Concurrency Increase (function executions)** |
| Asia Pacific (Tokyo) | 1000 |
| Asia Pacific (Seoul) | 500 |
| Asia Pacific (Mumbai) | 500 |
| Asia Pacific (Singapore) | 500 |
| Asia Pacific (Sydney) | 500 |
| Canada (Central) | 500 |
| EU (Frankfurt) | 1000 |
| EU (London) | 500 |
| EU (Ireland) | 3000 |
| EU (Paris) | 500 |
| US East (Ohio) | 500 |
| US West (N. California) | 500 |
| US West (Oregon) | 3000 |
| US East (N. Virginia) | 3000 |
| South America (São Paulo) | 500 |
| China (Beijing) | 500 |
| AWS GovCloud (US) | 500 |

**Amazon Lightsail Limits**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Comment** |
| Number of instances | 20 per account | This limit cannot be increased. |
| Number of Elastic IP addresses | 5 per account | This limit cannot be increased. |
| Number of parallel SSH connections | 3 x the number of instances in the account | This limit cannot be increased. |
| Number of hosted zones | 3 per account | This limit cannot be increased. |

**Amazon Macie Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Full data classification | 3 TB per month |
| Macie member accounts | 10 |
| S3 buckets/prefixes specified for data classification | 250 (this is a hard limit and cannot be changed) |

For more information, see the [Amazon Macie User Guide](http://docs.aws.amazon.com/macie/latest/userguide/).

**Amazon Machine Learning (Amazon ML) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Data file size\* | 100 GB |
| Batch prediction input size | 1 TB |
| Batch prediction input (number of records) | 100 million |
| Number of variables in a data file (schema) | 1,000 |
| Recipe complexity (number of processed output variables) | 10,000 |
| Transactions Per Second for each real-time prediction endpoint | 200 |
| Total Transactions Per Second for all real-time prediction endpoints | 10,000 |
| Total RAM for all real-time prediction endpoints | 10 GB |
| Number of simultaneous jobs | 25 |
| Longest run time for any job | 7 days |
| Number of classes for multiclass ML models | 100 |
| ML model size | 2 GB |

**Note**

The size of your data files is limited to ensure that jobs finish in a timely manner. Jobs that have been running for more than seven days are automatically terminated, resulting in a FAILED status.

For more information about these limits, see [Amazon ML Limits](http://docs.aws.amazon.com/machine-learning/latest/dg/system-limits.html) in the *Amazon Machine Learning Developer Guide*.

**AWS Elemental MediaConvert Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of queues per account | 10 |
| Concurrent jobs per account, processed across all queues | Varies by region.  40 in these regions:   * US East (N. Virginia) * US West (Oregon) * EU (Ireland)   20 in all other regions |
| Concurrent jobs processed per queue | Number allowed across all queues, divided equally by number of queues you create. |
| Number of custom output presets | 100 |
| Number of custom output job templates | 100 |
| DescribeEndpoints API calling rate per second | 0.01667 TPS (Once per 60 seconds, burst zero) |
| Aggregate API calling rate for job, queue, preset and template | 2 TPS (2 transactions per second, burst 100) |

You can request increses on these limits. To do so, go to the [AWS suport center](https://aws.amazon.com/support) and create a case.

**AWS Elemental MediaLive Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum inputs | 5 |
| Maximum input security groups | 5 |
| Maximum channels | 5 |

**AWS Elemental MediaPackage Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Maximum channels per account | 10 |
| Maximum endpoints per channel | 10 |

**AWS Elemental MediaStore Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Containers | 100 |

For information about AWS Elemental MediaStore limits, including limits that can't be increased, see [Limits](http://docs.aws.amazon.com/mediastore/latest/ug/limits.html)in the *AWS Elemental MediaStore User Guide*.

**AWS Elemental MediaTailor Limits**

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default Limit** | **Comment** |
| Transactions | 3,000 concurrent transactions per second across all request types (such as manifest requests and tracking requests for client-side reporting). | This is an account-level limit.  Your transactions per second are largely dependent on how often the player requests updated manifests. For example, a player with eight second segments might update the manifest every eight seconds. The player, then, generates 0.125 transactions per second. |

For more information about AWS Elemental MediaTailor limits, including limits that can't be increased, see [Limits](http://docs.aws.amazon.com/mediatailor/latest/ug/limits.html) in the *AWS Elemental MediaTailor User Guide*.

**Amazon MQ Limits**

For information about these limits, see [Amazon MQ Limits](http://docs.aws.amazon.com/amazon-mq/latest/developer-guide/amazon-mq-limits.html) in the *Amazon MQ Developer Guide*.

**Amazon Neptune Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| US East (N. Virginia) Region:  Maximum instances | Maximum instances is 3. |

You can request an increase on this limit. For more information, see <https://aws.amazon.com/support>.

**AWS OpsWorks for Chef Automate and AWS OpsWorks for Puppet Enterprise Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Chef or Puppet servers | 5 |
| User-initiated (manual) backup generations | 10 |
| Automated (scheduled) backup generations | 30 |

**AWS OpsWorks Stacks Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Stacks | 40 |
| Layers per stack | 40 |
| Instances per stack | 40 |
| Apps per stack | 40 |

**AWS Organizations Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Accounts per organization | Varies. Contact Customer Support. |
| Invitations sent per day | 20 |

For more information about these limits, see [Limits of AWS Organizations](http://docs.aws.amazon.com/organizations/latest/userguide/orgs_reference_limits.html) in the *AWS Organizations User Guide*.

**Amazon Pinpoint Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Active campaigns per account | 200 per account.  **Note**  An *active campaign* is a campaign that hasn't completed or failed. Active campaigns have a status of SCHEDULED, EXECUTING, or PENDING\_NEXT\_RUN. |
| Concurrent endpoint import jobs per account | 2 per account. |
| Message sends per campaign activity | 100 million. |
| Total file size per endpoint import job | 1 GB per import job. |
| SMS account spend threshold | USD$1.00 per account. |
| Maximum number of Amazon SNS topics for two-way SMS | 100,000 per account. |
| Number of emails that can be sent per 24-hour period (*sending quota*) | 200 emails per 24-hour period for accounts in the sandbox environment. |
| Number of emails that can be sent each second (*sending rate*) | 1 email per second for accounts in the sandbox environment. |
| Email recipient addresses | Accounts in the sandbox environment may only send email to recipients whose email addresses or domains have been verified. |

To increase any of the limits above, submit a [Amazon Pinpoint Limit Increase case](https://console.aws.amazon.com/support/home#/case/create).

For more information about Amazon Pinpoint limits, including limits that can't be increased, see [Limits](http://docs.aws.amazon.com/pinpoint/latest/developerguide/limits.html) in the Amazon Pinpoint Developer Guide.

**Amazon Polly Limits**

* Throttle rate per IP address: 100 transactions (requests) per second (tps) with a burst limit of 120 tps.
* Throttle rate per operation:

**Throttle Rate per Operation**

|  |  |
| --- | --- |
| **Operation** | **Limit** |
| **Lexicon** |  |
| DeleteLexicon  PutLexicon  GetLexicon  ListLexicons | Any 2 transactions per second (tps) from these operations combined.  Maximum allowed burst of 4 tps. |
| **Speech** |  |
| DescribeVoices | 80 rps with a burst limit of 100 tps |
| SynthesizeSpeech | 80 rps with a burst limit of 100 tps |

**Amazon Redshift Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Nodes per cluster | 101 |
| Nodes | 200 |
| Reserved Nodes | 200 |
| Snapshots | 20 |
| Parameter Groups | 20 |
| Security Groups | 20 |
| Subnet Groups | 20 |
| Subnets per Subnet Group | 20 |
| Event Subscriptions | 20 |

For more information about these limits, see [Limits in Amazon Redshift](http://docs.aws.amazon.com/redshift/latest/mgmt/amazon-redshift-limits.html)in the *Amazon Redshift Cluster Management Guide*.

**Amazon Rekognition Limits**

Amazon Rekognition does not have service limits that you can change. For information about Amazon Rekognition service limits, see [Amazon Rekognition Limits](http://docs.aws.amazon.com/rekognition/latest/dg/limits.html).

**Amazon Relational Database Service (Amazon RDS) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Clusters | 40 |
| Cluster parameter groups | 50 |
| DB Instances | 40 |
| Event subscriptions | 20 |
| Manual snapshots | 100 |
| Option groups | 20 |
| Parameter groups | 50 |
| Read replicas per master | 5 |
| Reserved instances | 40 |
| Rules per security group | 20 |
| Security groups | 25 |
| Security groups (VPC) | 5 |
| Subnet groups | 50 |
| Subnets per subnet group | 20 |
| Tags per resource | 50 |
| Total storage for all DB instances | 100 TB |

**AWS Resource Groups Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Resource groups per account | 100 |

**Amazon Route 53 Limits**

**DNS and Domain Registration**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Hosted zones | 500 |
| Domains | 50 |
| Resource record sets per hosted zone | 10,000 |
| Reusable delegation sets | 100 |
| Hosted zones that can use the same reusable delegation set | 100 |
| Amazon VPCs that you can associate with a private hosted zone | 100 |
| Health checks | 200 |
| Traffic policies | 50 |
| Traffic policy records | 5 |

**Auto Naming**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Namespaces per AWS account | 50 per region |
| Instances per namespace | 2,000 per region |
| Instances per service | 100 per region |

For more information about these limits, see [Route 53 Limits](http://docs.aws.amazon.com/Route53/latest/DeveloperGuide/DNSLimitations.html) in the *Amazon Route 53 Developer Guide*.

**Amazon SageMaker Limits**

The following tables group Amazon SageMaker limits by components.

Amazon SageMaker Notebooks

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| ml.t2.medium instances | 20 |
| ml.t2.large instances | 20 |
| ml.t2.xlarge instances | 20 |
| ml.t2.2xlarge instances | 20 |
| ml.m4.xlarge instances | 20 |
| ml.m4.2xlarge instances | 20 |
| ml.m4.4xlarge instances | 10 |
| ml.m4.10xlarge instances | 5 |
| ml.m4.16xlarge instances | 5 |
| ml.p2.xlarge instances | 1 |
| ml.p2.8xlarge instances | 1 |
| ml.p2.16xlarge instances | 1 |
| ml.p3.2xlarge instances | 2 |
| ml.p3.8xlarge instances | 2 |
| ml.p3.16xlarge instances | 2 |
| Number of notebook instances | 100 |
| Number of running notebook instances | 20 |

Amazon SageMaker Training

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| ml.m4.xlarge instances | 20 |
| ml.m4.2xlarge instances | 20 |
| ml.m4.4xlarge instances | 10 |
| ml.m4.10xlarge instances | 5 |
| ml.m4.16xlarge instances | 5 |
| ml.m5.large instances | 20 |
| ml.m5.xlarge instances | 20 |
| ml.m5.2xlarge instances | 20 |
| ml.m5.4xlarge instances | 10 |
| ml.m5.12xlarge instances | 3 |
| ml.m5.24xlarge instances | 2 |
| ml.c4.xlarge instances | 20 |
| ml.c4.2xlarge instances | 20 |
| ml.c4.4xlarge instances | 20 |
| ml.c4.8xlarge instances | 20 |
| ml.c5.xlarge instances | 20 |
| ml.c5.2xlarge instances | 20 |
| ml.c5.4xlarge instances | 5 |
| ml.c5.9xlarge instances | 5 |
| ml.c5.18xlarge instances | 5 |
| ml.p2.xlarge instances | 1 |
| ml.p2.8xlarge instances | 1 |
| ml.p2.16xlarge instances | 1 |
| ml.p3.2xlarge instances | 2 |
| ml.p3.8xlarge instances | 2 |
| ml.p3.16xlarge instances | 2 |
| Longest run time for a training job | 5 days |
| Number of instances across training jobs | 20 |
| Number of instances for a training job | 20 |
| Size of EBS volume for an instance | 1 TB |

Amazon SageMaker Hosting

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| ml.t2.medium instances | 20 |
| ml.t2.large instances | 20 |
| ml.t2.xlarge instances | 20 |
| ml.t2.2xlarge instances | 20 |
| ml.m4.xlarge instances | 20 |
| ml.m4.2xlarge instances | 20 |
| ml.m4.4xlarge instances | 10 |
| ml.m4.10xlarge instances | 5 |
| ml.m4.16xlarge instances | 5 |
| ml.m5.large instances | 20 |
| ml.m5.xlarge instances | 20 |
| ml.m5.2xlarge instances | 20 |
| ml.m5.4xlarge instances | 10 |
| ml.m5.12xlarge instances | 3 |
| ml.m5.24xlarge instances | 2 |
| ml.c4.large instances | 20 |
| ml.c4.xlarge instances | 20 |
| ml.c4.2xlarge instances | 20 |
| ml.c4.4xlarge instances | 20 |
| ml.c4.8xlarge instances | 20 |
| ml.c5.large instances | 20 |
| ml.c5.xlarge instances | 20 |
| ml.c5.2xlarge instances | 20 |
| ml.c5.4xlarge instances | 5 |
| ml.c5.9xlarge instances | 5 |
| ml.c5.18xlarge instances | 5 |
| ml.p2.xlarge instances | 2 |
| ml.p2.8xlarge instances | 2 |
| ml.p2.16xlarge instances | 2 |
| ml.p3.2xlarge instances | 2 |
| ml.p3.8xlarge instances | 2 |
| ml.p3.16xlarge instances | 2 |
| Number of instances across active endpoints | 20 |
| Number of instances for an endpoint | 20 |
| Total TPS for all endpoints | 10,000 |
| Maximum payload size for endpoint invocation | 5 MB |

**AWS Server Migration Service Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Concurrent VM migrations | 50 per account |
| Maximum duration of service usage per VM (not per account), beginning with the initial replication of a VM. We terminate an ongoing replication after this period, unless a customer requests a limit increase. | 90 days |

**AWS Serverless Application Repository Limits**

**Limits Per Account Per Region**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Public Applications | 100 |
| Free Amazon S3 Storage for Code Packages | 5 GB |

**AWS Service Catalog Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Portfolios | 25 per account |
| Users, groups, and roles | 25 per portfolio |
| Products | 25 per portfolio, 100 total per account |
| Product versions | 50 per product |
| Constraints | 25 per product per portfolio |
| Tags | 20 per product, 20 per portfolio, 50 per provisioned product |
| Stacks | 200 (AWS CloudFormation limit) |

**AWS Shield Advanced Limits**

offers advanced monitoring and protection for Elastic IP addresses, CloudFront distributions, Route 53 hosted zones, or Elastic Load Balancing load balancers. You can monitor and protect up to 100 of each of these resource types per account. If you want to increase these limits, contact the [AWS Support Center](https://console.aws.amazon.com/support/home#/).

**Amazon Simple Email Service (Amazon SES) Limits**

The following are the default limits for Amazon SES in the sandbox environment.

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Daily sending quota | 200 messages per 24-hour period. |
| Maximum send rate | 1 email per second.  **Note**  The rate at which Amazon SES accepts your messages might be less than the maximum send rate. |
| Recipient address verification | All recipient addresses must be verified. |

For more information about these limits, see [Limits in Amazon SES](http://docs.aws.amazon.com/ses/latest/DeveloperGuide/limits.html) in the *Amazon Simple Email Service Developer Guide*.

**Amazon Simple Notification Service (Amazon SNS) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Topics | 100,000 per account |
| Subscriptions | 12,500,000 per topic |
| Pending subscriptions | 5,000 per account |
| Account spend threshold for SMS | 1.00 USD per account |
| Delivery rate for promotional SMS messages | 20 messages per second |
| Delivery rate for transactional SMS messages | 20 messages per second |
| Message filter policies | 100 per account |

To increase any of the limits above, submit an [SNS Limit Increase case](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-sns).

**Amazon SNS API Throttling Limits**

|  |  |
| --- | --- |
| **API** | **Transactions per Second** |
| ListEndpointsByPlatformApplication | 30 |
| ListTopics | 30 |
| ListPlatformApplications | 15 |
| ListSubscriptions | 30 |
| ListSubscriptionsByTopic | 30 |
| Subscribe | 100 |
| Unsubscribe | 100 |

The Amazon SNS API throttling limits cannot be increased.

**Amazon Simple Queue Service (Amazon SQS)**

For more information about these limits, see [Amazon SQS Limits](http://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-limits.html) in the *Amazon Simple Queue Service Developer Guide* and the "Limits and Restrictions" section of the [Amazon SQS FAQs](https://aws.amazon.com/sqs/faqs/).

**Amazon Simple Storage Service (Amazon S3) Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Buckets | 100 per account |

For more information about these limits, see [Amazon S3](http://docs.aws.amazon.com/AmazonS3/latest/dev/BucketRestrictions.html) limits in the *Amazon Simple Storage Service Developer Guide*.

**Amazon Simple Workflow Service (Amazon SWF) Limits**

For more information about these limits, see [Amazon SWF Limits](http://docs.aws.amazon.com/amazonswf/latest/developerguide/swf-dg-limits.html) in the *Amazon Simple Workflow Service Developer Guide*.

**Amazon SimpleDB Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Domains | 250 |

For more information about these limits, see [Amazon SimpleDB Limits](http://docs.aws.amazon.com/AmazonSimpleDB/latest/DeveloperGuide/SDBLimits.html) in the *Amazon SimpleDB Developer Guide*.

**AWS Step Functions Limits**

For more information about these limits, see [AWS Step Functions Limits](http://docs.aws.amazon.com/step-functions/latest/dg/limits.html) in the *AWS Step Functions Developer Guide*.

**AWS Storage Gateway Limits**

For more information about these limits, see [AWS Storage Gateway Limits](http://docs.aws.amazon.com/storagegateway/latest/userguide/resource-gateway-limits.html) in the *AWS Storage Gateway User Guide*.

**AWS Systems Manager Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Concurrently executing Automations | 25  Each AWS account can execute a maximum of 25 Automations at one time. Concurrent executions greater than 25 are automatically added to an execution queue. |
| Additional Automation executions that can be queued | 75 |
| Maximum duration an Automation execution can run when running in the context of a user | 12 hours  If you expect an Automation to run longer than 12 hours, then you must execute the Automation by using a service role (or assume role). |
| Run Command execution history retention | 30 days  The history of each command is available for up to 30 days. In addition, you can store a copy of all log files in Amazon Simple Storage Service or have an audit trail of all API calls in AWS CloudTrail. |
| On-premises managed instances registered through Amazon EC2 activation | Each AWS account can activate a maximum of 1,000 on-premises instances in a region for use with Systems Manager.  For more information about activating on-premises instances for use in your hybrid environment, see [Create a Managed-Instance Activation](http://docs.aws.amazon.com/systems-manager/latest/userguide/systems-manager-managedinstances.html#sysman-managed-instance-activation) in the [*AWS Systems Manager User Guide*](http://docs.aws.amazon.com/systems-manager/latest/userguide/).  **Note**  Activation limits apply only to the on-premises instances you add to your hybrid environment, and not to registered Amazon EC2 instances. |
| Systems Manager documents | 200  Each AWS account can create a maximum of 200 documents per region. |
| Privately shared Systems Manager document | 1000  A single Systems Manager document can be shared with a maximum of 1000 AWS accounts. |
| Publicly shared Systems Manager document | 5  Each AWS account can publicly share a maximum of five documents. |
| State Manager associations | 10,000  Each Systems Manager document can be associated with a maximum of 10,000 instances. |
| State Manager association versions | 1,000  You can created a maximum of 1,000 versions of a State Manager association. |
| Inventory data collected per instance per call | 1 MB  This maximum adequately supports most inventory collection scenarios. When this limit is reached, no new inventory data is collected for the instance. Inventory data previously collected is stored until the expiration. |
| Inventory data collected per instance per day | 5 MB  When this limit is reached, no new inventory data is collected for the instance. Inventory data previously collected is stored until the expiration. |
| Custom Inventory Types | 20  You can add up to 20 custom inventory types. |
| Custom Inventory Type Size | 200 KB  This is the maximum size of the type, not the inventory collected. |
| Custom Inventory Type Attributes | 50  This is the maximum number of attributes within the custom inventory type. |
| Inventory data expiration | 30 days  If you terminate an instance, inventory data for that instance is deleted immediately. For running instances, inventory data older than 30 days is deleted. If you need to store inventory data longer than 30 days, you can use AWS Config to record history or periodically query and upload the data to an Amazon S3 bucket. For more information, see, [Recording Amazon EC2 managed instance inventory](http://docs.aws.amazon.com/config/latest/developerguide/resource-config-reference.html#recording-managed-instance-inventory) in the *AWS Config Developer Guide*. |
| Maintenance Windows per account | 50 |
| Tasks per Maintenance Window | 20 |
| Targets per Maintenance Window | 50 |
| Instance IDs per target | 50 |
| Targets per task | 10 |
| Concurrent executions of a single Maintenance Window | 1 |
| Concurrent executions of Maintenance Windows | 5 |
| Maintenance Window execution history retention | 30 days |
| Maximum number of parameters per account | 10,000 |
| Max size for parameter value | 4096 characters |
| Max history for a parameter | 100 past values |
| Patch baselines per account | 25 |
| Patch groups per patch baseline | 25 |

**Amazon Transcribe Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Number of concurrent transcription jobs | 10 |
| Total number of vocabularies per account | 100 |
| Number of pending vocabularies | 10 |

You can request an increase for any of the limits using the [Amazon Transcribe service limits increase form](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-transcribe).

For information about additional documented limits, see [Guidelines and Limits](https://docs.aws.amazon.com/transcribe/latest/dg/limits-guidelines.html) in the *Amazon Transcribe Developer Guide*.

**Amazon Translate Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Characters per 10 seconds | 5,000 |
| Transactions per second for all language pairs | 10 |

You can request an increase for any of the limits using the [Amazon Translate service limits increase form](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-translate).

For information about additional documented limits, see [Guidelines and Limits](http://docs.aws.amazon.com/translate/latest/dg/limits-guidelines.html) in the *Amazon Translate Developer Guide*.

**Amazon Virtual Private Cloud (Amazon VPC) Limits**

Unless otherwise noted, [submit a request](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-vpc) to increase these limits.

|  |  |  |
| --- | --- | --- |
| **Resource** | **Default limit** | **Comments** |
| VPCs per region | 5 | Increasing this limit increases the limit on Internet gateways per region by the same amount. The multiple of the number of VPCs in the region and the number of security groups per VPC cannot exceed 5000. |
| Subnets per VPC | 200 | - |
| IPv4 CIDR blocks per VPC | 5 | This limit is made up of the primary CIDR block plus 4 secondary CIDR blocks. |
| IPv6 CIDR blocks per VPC | 1 | This limit cannot be increased. |
| Internet gateways per region | 5 | This limit is directly correlated with the limit on VPCs per region. To increase this limit, increase the limit on VPCs per region. Only one Internet gateway can be attached to a VPC at a time. |
| Egress-only Internet gateways per region | 5 | This limit is directly correlated with the limit on VPCs per region. To increase this limit, increase the limit on VPCs per region. Only one egress-only Internet gateway can be attached to a VPC at a time. |
| Virtual private gateways per region | 5 | Only one virtual private gateway can be attached to a VPC at a time. |
| Customer gateways per region | 50 | To increase this limit, contact AWS Support. |
| VPN connections per region | 50 | - |
| VPN connections per VPC (per virtual private gateway) | 10 | - |
| Route tables per VPC | 200 | This limit includes the main route table. |
| Routes per route table (non-propagated routes) | 50 | You can increase this limit up to a maximum of 100; however, network performance may be impacted. This limit is enforced separately for IPv4 routes and IPv6 routes (50 each, and a maximum of 100 each). |
| BGP advertised routes per route table (propagated routes) | 100 | This limit cannot be increased. If you require more than 100 prefixes, advertise a default route. |
| Elastic IP addresses per region for EC2-VPC | 5 | This is the limit for the number of Elastic IP addresses for use in EC2-VPC. For Elastic IP addresses for EC2-Classic, see [Amazon Elastic Compute Cloud (Amazon EC2) Limits](https://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html#limits_ec2). |
| Security groups per VPC | 500 | The multiple of the number of VPCs in the region and the number of security groups per VPC cannot exceed 5000. |
| Inbound or outbound rules per security group | 50 | You can have 50 inbound and 50 outbound rules per security group (giving a total of 100 rules). To change this limit, contact AWS Support — a limit change applies to both inbound and outbound rules. The multiple of the limit for inbound or outbound rules per security group and the limit for security groups per network interface cannot exceed 250. For example, if you increase the limit to 100, we decrease your number of security groups per network interface to 2.  This limit is enforced separately for IPv4 rules and IPv6 rules. A rule that references a security group counts as one rule for IPv4 and one rule for IPv6. |
| Security groups per network interface | 5 | To increase or decrease this limit, contact AWS Support. The maximum is 16. The multiple of the limit for security groups per network interface and the limit for rules per security group cannot exceed 250. For example, if you increase the limit to 10, we decrease your number of rules per security group to 25. |
| Network interfaces per instance | - | This limit varies by instance type. For more information, see [IP Addresses Per ENI Per Instance Type](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.html#AvailableIpPerENI). |
| Network interfaces per region | 350 | This limit is the greater of either the default limit (350) or your On-Demand Instance limit multiplied by 5. The default limit for On-Demand Instances is 20. If your On-Demand Instance limit is below 70, the default limit of 350 applies. To increase this limit, submit a request or increase your On-Demand Instance limit. |
| Network ACLs per VPC | 200 | You can associate one network ACL to one or more subnets in a VPC. This limit is not the same as the number of rules per network ACL. |
| Rules per network ACL | 20 | This is the one-way limit for a single network ACL, where the limit for ingress rules is 20, and the limit for egress rules is 20. This limit includes both IPv4 and IPv6 rules, and includes the default deny rules (rule number 32767 for IPv4 and 32768 for IPv6, or an asterisk \* in the Amazon VPC console).  This limit can be increased up to a maximum if 40; however, network performance may be impacted. |
| Active VPC peering connections per VPC | 50 | The maximum limit is 125 peering connections per VPC. The number of entries per route table should be increased accordingly; however, network performance may be impacted. |
| Outstanding VPC peering connection requests | 25 | This is the limit for the number of outstanding VPC peering connection requests that you've requested from your account. To increase this limit, contact AWS Support. |
| Expiry time for an unaccepted VPC peering connection request | 1 week (168 hours) | To increase this limit, contact AWS Support. |
| VPC endpoints per region | 20 | You can have 20 interface endpoints and 20 gateway endpoints. The maximum limit for gateway endpoints is 255 endpoints per VPC, regardless of your endpoint limit per region. |
| Flow logs per single network interface, single subnet, or single VPC in a region | 2 | This limit cannot be increased. You can effectively have 6 flow logs per network interface if you create 2 flow logs for the subnet, and 2 flow logs for the VPC in which your network interface resides. |
| NAT gateways per Availability Zone | 5 | A NAT gateway in the pending, active, or deleting state counts against your limit. |

For more information about these limits, see [Amazon VPC Limits](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Appendix_Limits.html) in the *Amazon VPC User Guide*.

**Amazon VPC DNS Limits**

For more information about these limits, see [DNS Limits](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpc-dns.html#vpc-dns-limits) in the *Amazon VPC User Guide*.

**AWS WAF Limits**

AWS WAF has default limits on the number of entities per account. You can [request an increase](https://console.aws.amazon.com/support/home#/case/create?issueType=service-limit-increase&limitType=service-code-waf) in these limits.

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Web ACLs per AWS account | 50 |
| Rules per AWS account | 100 |
| Conditions per AWS account | 100 of each condition type (For example: 100 Size constraint conditions, 100 IP match conditions, etc.) |
| Requests per Second | 10,000 per web ACL\* |

\*This limit applies only to AWS WAF on an Application Load Balancer. Requests per Second (RPS) limits for AWS WAF on CloudFront are the same as the RPS limits support by CloudFront described in [the CloudFront developer guide](http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/cloudfront-limits.html).

The following limits on AWS WAF entities can't be changed.

|  |  |
| --- | --- |
| **Resource** | **Limit** |
| Rules per web ACL | 10 |
| Conditions per rule | 10 |
| IP address ranges (in CIDR notation) per IP match condition | 10,000 |
| Filters per cross-site scripting match condition | 10 |
| Filters per size constraint condition | 10 |
| Filters per SQL injection match condition | 10 |
| Filters per string match condition | 10 |
| In string match conditions, the number of characters in HTTP header names, when you've configured AWS WAF to inspect the headers in web requests for a specified value | 40 |
| In string match conditions, the number of characters in the value that you want AWS WAF to search for | 50 |
| In regex match conditions, the number of characters in the pattern that you want AWS WAF to search for | 70 |

These limits are the same for all regions in which AWS WAF is available. Each region is subject to these limits individually. That is, the limits are not cumulative across regions.

**Amazon WorkMail Limits**

For more information about these limits, see [Amazon WorkMail Limits](http://docs.aws.amazon.com/workmail/latest/adminguide/what_is.html).

**Amazon WorkSpaces Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| WorkSpaces | 1 |
| Graphics WorkSpaces | 0 |
| Images | 5 |

**AWS X-Ray Limits**

|  |  |
| --- | --- |
| **Resource** | **Default Limit** |
| Trace and service graph retention | 30 days |
| Segment document size | 64kB |
| Indexed annotations per trace | 50 |