



# SALESFORCE DEVELOPER LIMITS AND ALLOCATIONS QUICK REFERENCE

## Summary

Find the most critical limits for developing Lightning Platform applications.

## About This Quick Reference

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This quick reference provides common limits and allocations for Salesforce and doesn't cover all limits and allocations. It might contain limits or allocations that don't apply to your Salesforce org. Stated limits aren't a promise that the specified resource is available at its limit in all circumstances. Load, performance, and other system issues can prevent some limits from being reached. Limits can change without notice.

This guide doesn't include limits or allocations for:

- User interface elements in the Salesforce application
- Field lengths of Salesforce objects
- Desktop integration clients
- Your Salesforce contract

Information for specific feature limits, such as the number of total and active rules in your org, are also in Salesforce Help; see the topics for using that feature. For allocations per edition, see [Salesforce Features and Edition Allocations](#). For information on limits when using Salesforce Functions, see [Functions Limits](#). Contractual limits might also apply, as per your Salesforce contract.

## Apex Governor Limits

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Read up on Apex limits details in [Execution Governors and Limits](#)

Because Apex runs in a multitenant environment, the Apex runtime engine strictly enforces limits so that runaway Apex code or processes don't monopolize shared resources. If some Apex code exceeds a limit, the associated governor issues a runtime exception that can't be handled.

## Per-Transaction Apex Limits

These limits count for each Apex transaction. For Batch Apex, these limits are reset for each execution of a batch of records in the `execute` method.

This table lists limits for synchronous Apex and asynchronous Apex (Batch Apex and future methods) when they're different. Otherwise, this table lists only one limit that applies to both synchronous and asynchronous Apex.

### Note:

- Although scheduled Apex is an asynchronous feature, synchronous limits apply to scheduled Apex jobs.
- For Bulk API and Bulk API 2.0 transactions, the effective limit is the higher of the synchronous and asynchronous limits. For example, the maximum number of Bulk Apex jobs added to the queue with `System.enqueueJob` is the synchronous limit (50), which is higher than the asynchronous limit (1).

| Description   | Synchronous Limit   | Asynchronous Limit                                      |
|---|---------------------|---|
| Total number of SOQL queries issued <sup>1</sup>  | 100                 | 200   |
| Total number of records retrieved by SOQL queries   | 50,000              | 50,000  |
| Total number of records retrieved by <code>Database.getQueryLocator</code>  | 10,000              | 10,000  |
| Total number of SOSL queries issued   | 20                  | 20  |
| Total number of records retrieved by a single SOSL query  | 2,000               | 2,000   |
| Total number of DML statements issued <sup>2</sup>  | 150                 | 150   |
| Total number of records processed as a result of DML statements, <code>Approval.process</code> , or <code>database.emptyRecycleBin</code>                                   | 10,000              | 10,000  |
| Total stack depth for any Apex invocation that recursively fires triggers due to <code>insert</code> , <code>update</code> , or <code>delete</code> statements <sup>3</sup> | 16                  | 16  |
| Total number of callouts (HTTP requests or web services calls) in a transaction   | 100                 | 100   |
| Maximum cumulative timeout for all callouts (HTTP requests or Web services calls) in a transaction  | 120 seconds         | 120 seconds   |
| Maximum number of methods with the <code>future</code> annotation allowed per Apex invocation   | 50                  | 0 in batch and future contexts; 50 in queueable context |
| Maximum number of Apex jobs added to the queue with <code>System.enqueueJob</code>  | 50                  | 1   |
| Total number of <code>sendEmail</code> methods allowed  | 10                  | 10  |
| Total heap size <sup>4</sup>  | 6 MB                | 12 MB   |
| Maximum CPU time on the Salesforce servers <sup>5</sup>   | 10,000 milliseconds | 60,000 milliseconds                                     |
| Maximum execution time for each Apex transaction  | 10 minutes          | 10 minutes  |
| Maximum number of push notification method calls allowed per Apex transaction   | 10                  | 10  |
| Maximum number of push notifications that can be sent in each push notification method call   | 2,000               | 2,000   |
| Maximum number of <code>EventBus.publish</code> calls for platform events configured to publish immediately   | 150                 | 150   |
| Maximum number of rows per Apex cursor  | 50 million          | 50 million  |
| Maximum number of Apex cursors per day  | 10,000              | 10,000  |

| Description  | Synchronous Limit | Asynchronous Limit |
|--|-------------------|--------------------|
| Maximum number of cursor fetch calls per transaction           | 10                | 10                 |
| Maximum number of Apex cursor rows fetched per day (aggregate) | 100 million       | 100 million        |

<sup>1</sup> In a SOQL query with parent-child relationship subqueries, each parent-child relationship counts as an extra query. These types of queries have a limit of three times the number for top-level queries. The limit for subqueries corresponds to the value that `Limits.getLimitAggregateQueries()` returns. The row counts from these relationship queries contribute to the row counts of the overall code execution. This limit doesn't apply to custom metadata types. In a single Apex transaction, custom metadata records can have unlimited SOQL queries. In addition to static SOQL statements, calls to the following methods count against the number of SOQL statements issued in a request.

- `Database.countQuery`, `Database.countQueryWithBinds`
- `Database.getQueryLocator`, `Database.getQueryLocatorWithBinds`
- `Database.query`, `Database.queryWithBinds`

<sup>2</sup> Calls to the following methods count against the number of DML statements issued in a request.

- `Approval.process`
- `Database.convertLead`
- `Database.emptyRecycleBin`
- `Database.rollback`
- `Database.setSavePoint`
- `delete` and `Database.delete`
- `insert` and `Database.insert`
- `merge` and `Database.merge`
- `undelete` and `Database.undelete`
- `update` and `Database.update`
- `upsert` and `Database.upsert`
- `EventBus.publish` for platform events configured to publish after commit
- `System.runAs`

<sup>3</sup> Recursive Apex that doesn't fire any triggers with `insert`, `update`, or `delete` statements, exists in a single invocation, with a single stack. Conversely, recursive Apex that fires a trigger spawns the trigger in a new Apex invocation. The new invocation is separate from the invocation of the code that caused it to fire. Spawning a new invocation of Apex is a more expensive operation than a recursive call in a single invocation. Therefore, there are tighter restrictions on the stack depth of these types of recursive calls.

<sup>4</sup> Email services heap size is 50 MB.

<sup>5</sup> CPU time is calculated for all executions on the Salesforce application servers occurring in one Apex transaction. CPU time is calculated for the executing Apex code, and for any processes that are called from this code, such as package code and workflows. CPU time is private for a transaction and is isolated from other transactions. Application server CPU time spent in DML operations is counted towards the Apex CPU limit. Operations that don't consume application server CPU time aren't counted toward CPU time. For example, the portion of execution time spent in the database for DML, SOQL, and SOSL isn't counted,

nor is waiting time for Apex callouts. Bulk API and Bulk API 2.0 consume a unique governor limit for CPU time on Salesforce Servers, with a maximum value of 60,000 milliseconds.

 **Note:**

- Limits apply individually to each `testMethod`.
- To determine the code execution limits for your code while it's running, use the Limits methods. For example, you can use the `getDMLStatements` method to determine the number of DML statements that have already been called by your program. Or, you can use the `getLimitDMLStatements` method to determine the total number of DML statements available to your code.

## Per-Transaction Certified Managed Package Limits

Certified managed packages—managed packages that have passed the security review for AppExchange—get their own set of limits for most per-transaction limits. Salesforce ISV Partners develop certified managed packages, which are installed in your org from AppExchange and have unique namespaces.

Here's an example that illustrates the separate certified managed package limits for DML statements. If you install a certified managed package, all the Apex code in that package gets its own 150 DML statements. These DML statements are in addition to the 150 DML statements your org's native code can execute. This limit increase means more than 150 DML statements can execute during a single transaction if code from the managed package and your native org both executes. Similarly, the certified managed package gets its own 100-SOQL-query limit for synchronous Apex, in addition to the org's native code limit of 100 SOQL queries.

There's no limit on the number of certified namespaces that can be invoked in a single transaction. However, the number of operations that can be performed in each namespace must not exceed the per-transaction limits. There's also a limit on the cumulative number of operations that can be made across namespaces in a transaction. This cumulative limit is 11 times the per-namespace limit. For example, if the per-namespace limit for SOQL queries is 100, a single transaction can perform up to 1,100 SOQL queries. In this case, the cumulative limit is 11 times the per-namespace limit of 100. These queries can be performed across an unlimited number of namespaces, as long as any one namespace doesn't have more than 100 queries. The cumulative limit doesn't affect limits that are shared across all namespaces, such as the limit on maximum CPU time.

 **Note:**

- These cross-namespace limits apply only to namespaces in certified managed packages.
- Namespaces in non-certified packages don't have their own separate governor limits. The resources that they use continue to count against the same governor limits used by the org's custom code.

This table lists the cumulative cross-namespace limits.

| Description  | Cumulative Cross-Namespace Limit |
|--|----------------------------------|
| Total number of SOQL queries issued  | 1,100                            |
| Total number of records retrieved by <code>Database.getQueryLocator</code> | 110,000                          |

| Description   | Cumulative Cross-Namespace Limit |
|---|----------------------------------|
| Total number of SOSL queries issued   | 220                              |
| Total number of DML statements issued   | 1,650                            |
| Total number of callouts (HTTP requests or web services calls) in a transaction | 1,100                            |
| Total number of <code>sendEmail</code> methods allowed                          | 110                              |

All per-transaction limits count separately for certified managed packages except for:

- The total heap size
- The maximum CPU time
- The maximum transaction execution time
- The maximum number of unique namespaces

These limits count for the entire transaction, regardless of how many certified managed packages are running in the same transaction.

The code from a package from AppExchange, not created by a Salesforce ISV Partner and not certified, doesn't have its own separate governor limits. Any resources used by the package count against the total org governor limits. Cumulative resource messages and warning emails are also generated based on managed package namespaces.

For more information on Salesforce ISV Partner packages, see [Salesforce Partner Programs](#).

## Lightning Platform Apex Limits

The limits in this table aren't specific to an Apex transaction; Lightning Platform enforces these limits.

| Description  | Limit   |
|--|---|
| The maximum number of asynchronous Apex method executions (batch Apex, future methods, Queueable Apex, and scheduled Apex) per a 24-hour period <sup>1,6,7</sup> | 250,000 or the number of user licenses in your org multiplied by 200, whichever is greater  |
| Number of synchronous concurrent transactions for long-running transactions that last longer than 5 seconds for each org. <sup>2</sup>                           | Based on the number of applicable licenses <sup>8</sup> in an org, the limit is calculated as a ratio of 100 licenses to one concurrent long-running Apex transaction <sup>9</sup> . <ul style="list-style-type: none"> <li>• Minimum limit is 10</li> <li>• Maximum limit is 50</li> </ul> |
| Maximum number of Apex classes scheduled concurrently  | 100. In Developer Edition orgs, the limit is 5.   |

| Description  | Limit  |
|--|--|
| Maximum number of batch Apex jobs in the Apex flex queue that are in <code>Holding</code> status                                   | 100  |
| Maximum number of batch Apex jobs queued or active concurrently <sup>3</sup>   | 5  |
| Maximum number of batch Apex job <code>start</code> method concurrent executions <sup>4</sup>                                      | 1  |
| Maximum number of batch jobs that can be submitted in a running test   | 5  |
| Maximum number of test classes that can be queued per 24-hour period (production orgs other than Developer Edition) <sup>5,6</sup> | The greater of 500 or 10 multiplied by the number of test classes in the org |
| Maximum number of test classes that can be queued per 24-hour period (sandbox and Developer Edition orgs) <sup>5,6</sup>           | The greater of 500 or 20 multiplied by the number of test classes in the org |

<sup>1</sup> For Batch Apex, method executions include executions of the `start`, `execute`, and `finish` methods. This limit is for your entire org and is shared with all asynchronous Apex: Batch Apex, Queueable Apex, scheduled Apex, and future methods. The license types that count toward this limit include full Salesforce and Salesforce Platform user licenses, App Subscription user licenses, Chatter Only users, Identity users, and Company Communities users.

<sup>2</sup> If more transactions are started while the default number of long-running transactions are still running, they're denied. HTTP callout processing time isn't included when calculating this limit.

<sup>3</sup> When batch jobs are submitted, they're held in the flex queue before the system queues them for processing.

<sup>4</sup> Batch jobs that haven't started yet remain in the queue until they're started. If more than one job is running, this limit doesn't cause any batch job to fail. `execute` methods of batch Apex jobs still run in parallel.

<sup>5</sup> This limit applies to tests running asynchronously. This group of tests includes tests started through the Salesforce user interface including the Developer Console or by inserting `ApexTestQueueItem` objects using SOAP API.

<sup>6</sup> To check how many asynchronous Apex executions are available, make a request to REST API `limits` resource or use Apex methods `OrgLimits.getAll()` or `OrgLimits.getMap()`. See [List Organization Limits](#) in the *REST API Developer Guide* and [OrgLimits Class](#) in the *Apex Reference Guide*.

<sup>7</sup> If the number of asynchronous Apex executions needed by a job exceeds the available number that's calculated using the 24-hour rolling limit, an exception is thrown. Batch Apex preemptively checks the required asynchronous job capacity when `Database.executeBatch` is called and the `start` method has returned the workload. The batch won't start unless there is sufficient capacity for the entire job available. For example, if the batch requires 10,000 executions and the remaining asynchronous limit is 9,500 executions, an `AsyncApexExecutionsLimitExceeded` exception is thrown, and the remaining executions are left unchanged.

<sup>8</sup> The license types that count toward this limit include full Salesforce and Salesforce Platform user licenses, App Subscription user licenses, Chatter Only users, Identity users, and Company Communities users.

<sup>9</sup>For example, if your org has 4,000 licenses, the concurrent long-running Apex requests limit is set at 40. If your org has 5,000 or more licenses, the concurrent long-running Apex requests limit is set at 50, which is the maximum capped limit. If your org has 1,000 or fewer licenses, the concurrent long-running Apex requests limit is set at 10, which is the minimum floor limit.

## Static Apex Limits

| Description   | Limit  |
|---|--|
| Default timeout of callouts (HTTP requests or Web services calls) in a transaction              | 10 seconds   |
| Maximum size of callout request or response (HTTP request or Web services call) <sup>1</sup>    | 6 MB for synchronous Apex or 12 MB for asynchronous Apex |
| Maximum SOQL query run time before Salesforce cancels the transaction                           | 120 seconds  |
| Maximum number of class and trigger code units in a deployment of Apex                          | 7500   |
| Apex trigger batch size <sup>2</sup>  | 200  |
| For loop list batch size  | 200  |
| Maximum number of records returned for a Batch Apex query in <code>Database.QueryLocator</code> | 50 million   |

<sup>1</sup> The HTTP request and response sizes count towards the total heap size.

<sup>2</sup> The Apex trigger batch size for platform events and Change Data Capture events is 2,000. The trigger batch size doesn't apply when using [Mass Transfer Records](#).

## Size-Specific Apex Limits

| Description   | Limit   |
|---|---|
| Maximum number of characters for a class                                | 1 million                                     |
| Maximum number of characters for a trigger                              | 1 million                                     |
| Maximum amount of code used by all Apex code in an org <sup>1,3,4</sup> | 6 MB  |
| Method size limit <sup>2</sup>  | 65,535 bytecode instructions in compiled form |

<sup>1</sup> This limit doesn't apply to Apex code in first generation(1GP) or second generation(2GP) managed packages. The code in those types of packages belongs to a namespace unique from the code in your org. This limit also doesn't apply to any code included in a class defined with the `@isTest` annotation.

<sup>2</sup> Large methods that exceed the allowed limit cause an exception to be thrown during the execution of your code.

<sup>3</sup> The default 6 MB limit can be increased by opening a [support case](#) for your org. Before you apply for a limit increase, ensure that you're following best practices outlined in [Increase Apex Code Character Limit](#).

<sup>4</sup> For scratch orgs, the limit is 10MB. The limit can be increased by opening a [support case](#) for your org. Before you apply for a limit increase, ensure that you're following the [best practices](#).

## Push Notification Limits

An org can send up to 20,000 iOS and 10,000 Android push notifications per hour (for example, 4:00 to 4:59 UTC).

Only *deliverable* notifications count toward this limit. For example, a notification is sent to 1,000 employees in your company, but 100 employees haven't installed the mobile app yet. Only the notifications sent to the 900 employees who have installed the mobile app count toward this limit.

Each test push notification that is generated through the Test Push Notification page is limited to a single recipient. Test push notifications count toward an org's hourly push notification limit.

When an org's hourly push notification limit is met, any additional notifications are still created for in-app display and retrieval via REST API.

## API Request Limits and Allocations

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These limits and allocations apply to Salesforce Platform SOAP and REST APIs and any other API built on those frameworks, unless noted otherwise. For information about limits on other Salesforce APIs, such as Connect REST API, visit that specific documentation.

To maintain optimum performance and ensure that the Lightning Platform API is available to all our customers, Salesforce balances transaction loads by imposing three types of limits:

- Concurrent API Request Limits
- API Timeout Limits
- Total API Request Allocations

When a call exceeds a request limit, an error is returned.

### Concurrent API Request Limits

The following table lists the limits for various types of orgs for concurrent inbound requests (calls) with a duration of 20 seconds or longer.

| Org Type                         | Limit |
|----------------------------------|-------|
| Developer Edition and Trial orgs | 5     |
| Production orgs and Sandboxes    | 25    |

If the number of long running requests exceeds the limit, the API returns a `REQUEST_LIMIT_EXCEEDED` exception code. Any new concurrent requests aren't processed until



there are fewer requests than the allowed limit. For example, in a production org, no new concurrent requests are allowed until there are fewer than 25 long running requests.

There isn't a limit on the number of concurrent requests shorter than 20 seconds.

## API Timeout Limits

The timeout limit for REST and SOAP API calls is 10 minutes, except for any query call. The timeout for query calls is set by the SOQL limits. For details on SOQL limits, visit *SOQL and SOSL Limits for Search Queries*. For timeout limits on calls made using other Salesforce APIs, such as the Connect REST API and Bulk APIs, visit the specific documentation for those APIs.

If a request exceeds this limit, the API returns a `REQUEST_RUNNING_TOO_LONG` status code (for SOAP API) or a `QUERY_TIMEOUT` exception code (for REST API).

For calls to [Composite Resources](#) in REST API, this timeout applies to the entire composite request, not to each subrequest.

## Total API Request Allocations

The following table lists the limits for the total inbound API requests (calls) per 24-hour period for an org.


 **Note:** As indicated in the table, the limits for the External Identity license type vary. If you're not sure whether your limit is 70,000 calls, 750,000 calls, or 4,000,000 calls, contact your Salesforce representative.

| Salesforce Edition   | API Calls Per License Type Per 24-Hour Period   | Total Calls Per 24-Hour Period   |
|--|---|--|
| Developer Edition  | N/A   | 15,000   |
| <ul style="list-style-type: none"> <li>Enterprise Edition</li> <li>Professional Edition with API access enabled</li> </ul> | <ul style="list-style-type: none"> <li>Salesforce: 1,000</li> <li>Salesforce Platform: 1,000</li> <li>Lightning Platform - One App: 200</li> <li>Customer Community: 0</li> <li>Customer Community Login: 0</li> <li>Customer Community Plus: 200</li> <li>Customer Community Plus Login: 10</li> <li>External Identity 25,000: 70,000</li> <li>External Identity 250,000: 750,000</li> <li>External Identity 1,000,000: 4,000,000</li> <li>Partner Community: 200</li> </ul> | 100,000 + (number of licenses x calls per license type) + purchased API Call Add-Ons |

| Salesforce Edition   | API Calls Per License Type Per 24-Hour Period   | Total Calls Per 24-Hour Period  |
|--|---|---|
|  | <ul style="list-style-type: none"> <li>Partner Community Login: 10</li> <li>Lightning Platform Starter: 200 per member for Enterprise Edition orgs</li> <li>Lightning Platform Plus: 1000 per member for Enterprise Edition orgs</li> </ul>   |   |
| <ul style="list-style-type: none"> <li>Unlimited Edition</li> <li>Performance Edition</li> </ul> | <ul style="list-style-type: none"> <li>Salesforce: 5,000</li> <li>Salesforce Platform: 5,000</li> <li>Lightning Platform - One App: 200</li> <li>Customer Community: 0</li> <li>Customer Community Login: 0</li> <li>Customer Community Plus: 200</li> <li>Customer Community Plus Login: 10</li> <li>External Identity 25,000: 70,000</li> <li>External Identity 250,000: 750,000</li> <li>External Identity 1,000,000: 4,000,000</li> <li>Partner Community: 200</li> <li>Partner Community Login: 10</li> <li>Lightning Platform Starter: 200 per member for Unlimited and Performance Edition orgs</li> <li>Lightning Platform Plus: 5,000 per member for Unlimited and Performance Edition orgs</li> </ul> | 100,000 + (number of licenses x calls per license type) + purchased API Call Add-Ons  |
| Full Sandbox   | N/A   | 5,000,000<br><br>This limit applies only to Full Sandboxes that aren't created from a template. For any sandbox created from a template, values in the template determine the limits. For more information, visit |

| Salesforce Edition                                   | API Calls Per License Type Per 24-Hour Period | Total Calls Per 24-Hour Period |
|--|---|--------------------------------|
| <i>Salesforce Help: Sandbox Types and Templates.</i> |   |                                |

For Experience Cloud limits, see [Experience Cloud User Licenses](#).

 **Note:** Load, performance, and other system issues can prevent you from using your entire allocation of calls in a 24-hour period.

APIs that count toward this allocation include the Lightning Platform REST API, the Lightning Platform SOAP API, Bulk API, and Bulk API 2.0. API calls issued by certain Salesforce connected apps (for example, the Salesforce mobile app) don't count. To determine which APIs affect the allocation, see [Monitoring Your API Usage](#).

Calls that include DebuggingHeader have a separate allocation limit of 1,000 calls per 24-hour period. These calls can continue to be made after the total request limit for an org is reached.

Limits and allocations are enforced against the aggregate of all API calls made to the org in a 24-hour period. Limits and allocations are not on a per-user basis.

## Monitoring Your API Usage

To better monitor your org's API usage and limits, you can use these resources:


- The API Usage section of the System Overview page in Setup.
- The API Requests, Last 24 Hours item in the Organization Detail section of the System Overview page in Setup.
- The API Request Limit per Month usage-based entitlement, which shows you your org's API calls aggregated over 30 days. This information can be found on the Company Information page in Setup.
- Information returned in the `Sforce-Limit-Info` response header for REST APIs.
- Information returned in the response body (in `<type>API_REQUESTS</type>`) for SOAP APIs.
- The `/limits` call in the Lightning Platform REST API.

You can configure your org so that email is sent to a designated user when the number of API requests has exceeded a specified percentage of the amount allotted. Perform this configuration from Setup by entering *API Usage Notifications* in the Quick Find box and then selecting **API Usage Notifications**.

See also the [Learn About Daily Rate Limits](#) section in the App Development Without Limits Trailhead module.

## What Happens If You Reach or Exceed Your API Request Limit

If your org reaches or exceeds its daily API request limit, Salesforce still lets the operations proceed by a certain amount, if possible. It helps avoid blocking your workflows during unexpected spikes in workloads and occasional peak periods. A hard cap is in place to safeguard platform resources and prevent API requests from exceeding the daily limit unimpeded.

 **Note:** The ability to go over your normal daily limit is always subject to restrictions to protect the overall health of the Salesforce instance that hosts your org. (You can monitor the health of your instance on [Salesforce Trust](#).)

This ability is designed to be used occasionally to help avoid interruptions in your workflow. Don't rely on it on an ongoing basis. To increase your allocation, contact your Salesforce account representative.

This ability only applies to paid orgs in active status. It doesn't apply to trial orgs, Developer Edition, or sandboxes.

API request activity is aggregated into 30-day periods, starting with your contract start date, and includes calls that exceed the org's entitled limit.

## Increasing Total API Request Allocations

The total number of API requests allowed is defined by the users' licenses in the org. If you need more API requests in your org, use Your Account App to buy additional user licenses or extra API calls. For more information, visit [Salesforce Help: Add Products and Licenses with the Your Account App](#) or contact your account executive.

Before you buy more API calls, review your current API usage, and reduce your total number of requests, if possible. For example, you can optimize either your own or a partner client application to use fewer API calls and still accomplish the same work. If you use a partner app, consult with the vendor to verify that the product makes optimal use of the API. A product that makes inefficient use of the API incurs unnecessary costs for your company. You can also use REST API [Composite Resources](#) to improve your application's performance by minimizing the number of round-trips between the client and server.


## Example API Usage Metering Calculations

These examples illustrate API usage metering calculations for several scenarios.

- For an Enterprise Edition org with 15 Salesforce licenses, the request limit is 115,000 requests (100,000 plus 15 licenses x 1,000 calls).
- For a Developer Edition org that made 14,500 calls at 5:00 AM Wednesday, 499 calls at 11:00 PM Wednesday, only one more call can successfully be made until 5:00 AM Thursday.

## Request Size Limits

In each REST call, the maximum length for the combined URI and headers is 16,384 bytes. A request exceeding this limit returns a 431 Request Header Fields Too Large error. If the URI itself exceeds this limit, the request returns a 414 URI Too Long error.

 **Note:** Other factors, such as browsers and load balancers, can lower the maximum length of the URI and headers. For public-facing services, it's recommended to limit URI length to 2000 characters and headers to approximately 8000 bytes.

## Length of Stored Third-Party Refresh and Access Tokens

Salesforce stores third-party access and refresh tokens of up to 10,000 characters in length.

## Connect REST API Limits


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Limits protect shared resources. These limits are for Connect REST API consumers.

Connect REST API requests are subject to rate limits. Connect REST API has a different rate limit than other Salesforce APIs. Connect REST API has a per user, per application, per hour rate limit. When you exceed the rate limit, Connect REST API resources return a 503 Service Unavailable error code.

For migrated orgs and orgs created in Summer '24 and later, only requests to Chatter REST API resources are subject to the per user, per application, per hour rate limit. The documentation for every Chatter resource specifies that Chatter is required. Requests to resources that don't require Chatter count toward the [Salesforce Platform total API request allocations](#), which are per org and span a 24-hour period.

For applications using a session ID from Salesforce, the rate limit is per user, per hour—there isn't a separate bucket for applications. All applications the user accesses with a session ID use this general quota. To take advantage of the per user, per application, per hour limit, use OAuth tokens.

 **Note:** Load, performance, and other system issues can prevent some limits from being reached. Limits can change without notice. Ensure that your applications make efficient use of available requests and gracefully handle the 503 error code.

## Bulk API and Bulk API 2.0 Limits and Allocations

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Any data operation that includes more than 2,000 records is a good candidate for Bulk API 2.0 to successfully prepare, execute, and manage an *asynchronous* workflow that makes use of the Bulk framework. Jobs with fewer than 2,000 records should involve “bulkified” *synchronous* calls in REST (for example, Composite) or SOAP.

### Batch Allocations

You can submit up to 15,000 batches per rolling 24-hour period. This allocation is shared between Bulk API and Bulk API 2.0, so every batch that is processed in Bulk API or Bulk API 2.0 counts towards this allocation.

In Bulk API 2.0, only ingest jobs consume batches. Query jobs don't. For details, see *How Requests Are Processed* in the *Bulk API 2.0 Developer Guide*.

In Bulk API 2.0, batches are created for you automatically. In Bulk API, you must create the batches yourself.


### General Limits

| Item                   | Bulk API Limit  | Bulk API 2.0 Limit  |
|------------------------|---|---|
| Batch and job lifespan | Batches and jobs that are older than seven days are removed from the queue if batches are in a terminal state (completed, aborted, or failed), regardless of their respective job status. The seven days are measured from the youngest batch associated with a job, or the age of the job if there are no batches. You can't | Jobs in a terminal state (completed, aborted, or failed) that are older than seven days are deleted. Jobs in a non-terminal state that are older than seven days are periodically cleaned up. |

| Item                                    | Bulk API Limit   | Bulk API 2.0 Limit  |
|---|--|---|
|   | create batches associated with a job that is more than 24 hours old. Batches in a non-terminal state that are older than seven days are periodically cleaned up with their respective jobs.  |   |
| Binary content                          | <ul style="list-style-type: none"> <li>The length of any file name can't exceed 512 bytes.</li> <li>A zip file can't exceed 10 MB.</li> <li>The total size of the unzipped content can't exceed 20 MB.</li> <li>A maximum of 1,000 files can be contained in a zip file. Directories don't count toward this total.</li> </ul> | N/A   |
| Maximum time that a job can remain open | 24 hours   | The same. (But this only applies to ingest jobs, not query jobs.) |

## Limits Specific to Ingest Jobs

| Item  | Bulk API Limit  | Bulk API 2.0 Limit |
|---|---|--------------------|
| Maximum number of records uploaded per 24-hour rolling period | 150,000,000 (15,000 batches x 10,000 records per batch maximum)   | 150,000,000        |
| Batch processing time   | Batches are processed in chunks. The chunk size depends on the API version. In API version 20.0 and earlier, the chunk size is 100 records. In API version 21.0 and later, the chunk size is 200 records. Start with the maximum batch size of 10,000 records. Salesforce processes each batch asynchronously. Adjust batch sizes based on processing times. If processing a batch takes too long, then the batch times out and an error is returned. If that happens, reduce the batch size and resubmit. Likewise, if a job only takes a few seconds, increase up the batch size toward the maximum size. Avoid using smaller batches as this increases the total number of batches, and therefore, increases the risk of hitting your daily batch limit. | Same as Bulk API   |

| Item   | Bulk API Limit  | Bulk API 2.0 Limit   |
|--|---|--|
| Maximum time before a batch is retried                   | 5 minutes   | The API automatically handles retries. If you receive a message that the API retried more than 20 times, use a smaller upload file and try again.  |
| Results lifespan   | You can retrieve the ingest job's results (success, failed, and unprocessed records) within 7 days of job completion, unless the job has been deleted explicitly. | Same as Bulk API   |
| Maximum file size  | 10 MB per batch   | 150 MB per job<br><br> <b>Note:</b> A request can provide CSV data that does not in total exceed 150 MB of base64 encoded content. When job data is uploaded, it is converted to base64. This conversion can increase the data size by approximately 50%. To account for the base64 conversion increase, upload data that does not exceed 100 MB. |
| Maximum number of characters in a field                  | 131072  | Same as Bulk API   |
| Maximum number of fields in a record                     | 5,000   | Same as Bulk API   |
| Maximum number of characters in a record                 | 400,000   | Same as Bulk API   |
| Maximum number of records in a batch                     | 10,000  | N/A  |
| Maximum number of characters for all the data in a batch | 10,000,000  | N/A  |

## Limits Specific to Query Jobs

| Item  | Bulk API Limit   | Bulk API 2.0 Limit   |
|---|--|--|
| Number of attempts to query   | 30 attempts at 5 minutes each to process the batch. There's also a 2-minute limit on the time to process the query. If more than 30 attempts are made for the query, an error message of "Tried more than thirty times" is returned. If the query takes more than 2 minutes to process, a QUERY_TIMEOUT error is returned. | The API automatically handles retries. If you receive a message that the API retried more than 15 times, apply a filter criteria and try again.  |
| Batch size  | Without PK chunking enabled, only one batch is created. If you create a batch <i>with</i> PK chunking enabled, batches are broken up based on the number of records in the chunk. This can range from 100,000 to 250,000 records.  | The API automatically handles "batch" management.  |
| Number of retrieved files   | 15 files. If the query returns more than 15 files, add filters to the query to return less data. Bulk batch sizes aren't used for bulk queries.  | N/A  |
| Timeout for retrieving query results                                  | 20 minutes   | Same as Bulk API   |
| Results lifespan  | You can retrieve the query job's results within 7 days of job completion.  | Same as Bulk API   |
| Maximum retrieved file size   | 1 GB. If processing of the batch results in 1 GB of retrieved data, then those results are saved to disk, and then the batch is put back on the queue to be resumed later. This also counts as one of the 15 retries.  | Same as Bulk API.<br>Additionally, the API client can navigate through the full set of results by using the <code>locator</code> and <code>maxRecords</code> query parameters. The client isn't bound to a set of files. |
| Number of query jobs that can be submitted per 24-hour rolling window | See <a href="#">Batch Allocations</a> .  | 10,000<br><br>The current number can be seen in the <code>DailyBulkV2QueryJobs</code> value in the response to the   |



| Item   | Bulk API Limit | Bulk API 2.0 Limit  |
|--|----------------|---|
|  |                | <code>/vXX.X/limits/</code> REST API method.  |
| Total query results that can be generated per 24 hour rolling window | N/A            | 1 TB.<br>The current size can be seen in the <code>DailyBulkV2QueryFileStorageMB</code> value in the response to the <code>/vXX.X/limits/</code> REST API method. |

## API Query Cursor Limits

Cursors and their related query results are available for 2 days, including results in nested queries. There isn't a limit on the number of open cursors.

When results for a large or complex query can't be returned in a single batch, one or more server-side cursors and corresponding query locators are automatically created. A cursor marks the location of additional query results in the database, and a query locator finds the cursor. To get the additional results, use query locator within another call, such as `queryMore()` call in SOAP API or `nextRecordUrl` field in REST API.

Salesforce cursor limits were changed with the release of API version 56.0. Previously, a maximum of 10 cursors per user were accessible at the same time, which limited the query results and pagination to 10 result sets per user. The oldest cursor and result set expired after 15 minutes of inactivity. The removal of cursor limits is universal, and applies to all versions of Apex, SOAP API, REST API, Bulk API, Bulk API 2.0, and any features built using these technologies.

## SOAP API Call Limits

| API Name                        | API Limit                          | Limit Description   |
|---------------------------------|------------------------------------|---|
| <code>create()</code>           | Maximum number of records created  | Your client application can add up to 200 records in a single <code>create()</code> call. If a create request exceeds 200 records, then the entire operation fails. |
| <code>describeSObjects()</code> | Maximum number of objects returned | The <code>describeSObjects()</code> call is limited to a maximum of 100 objects returned.   |
| <code>getDeleted()</code>       | Limits for returned records        | If a <code>getDeleted()</code> call returns more than 600,000 records, the exception <code>EXCEEDED_ID_LIMIT</code> is returned.                                    |
| <code>login()</code>            | Login request size limit           | The login request size is limited to 10 KB.   |
| <code>merge()</code>            | Merge request limits               | <ul style="list-style-type: none"> <li>Up to 200 merge requests can be made in a single SOAP call.</li> </ul>   |

| API Name  | API Limit                         | Limit Description   |
|---|-----------------------------------|---|
|   |                                   | <ul style="list-style-type: none"> <li>Up to three records can be merged in a single request, including the master record. This limit is the same as the limit enforced by the Salesforce user interface. To merge more than 3 records, do a successive merge.</li> <li>External ID fields can't be used with <code>merge()</code>.</li> <li>If you selected the option to retain the most recently updated data privacy record for merging leads and contacts, but the caller doesn't have CRUD permission for the selected data privacy record, the merge process selects the data privacy record already associated with the master record.</li> </ul>                               |
| <code>update()</code>                             | Maximum number of records updated | Your client application can change up to 200 records in a single <code>update()</code> call. If an update request exceeds 200 records, the entire operation fails.  |
| <code>query()</code> and <code>queryMore()</code> | Batch size limits                 | <p>The maximum batch size is 2,000 records, but this number is only a suggestion. To maximize performance, the requested batch size isn't necessarily the actual batch size. Salesforce Web Service Connector (WSC) clients can set the batch size by calling <code>setQueryOptions()</code> on the connection object. C# client applications can change the batch size in the <code>QueryOptions</code> portion of the SOAP header before invoking the <code>query()</code> call.</p> <p>If the SOQL statement selects two or more custom fields of type long text, the batch size can't be greater than 200 records. This limit prevents large SOAP messages from being returned.</p> |


## Metadata Limits

The following limits apply to the Salesforce Extensions for Visual Studio Code, the Ant Migration Tool, and the Metadata API.

| Limit                             | Description  |
|-----------------------------------|--|
| Retrieving and deploying metadata | <p>You can deploy or retrieve up to 10,000 files at once. AppExchange packages use different limits: They can contain up to 35,000 files. The maximum size of the deployed or retrieved .zip file is 39 MB. If the files are uncompressed in an unzipped folder, the size limit is 600 MB. Note the following:</p> <ul style="list-style-type: none"> <li>If using the Ant Migration Tool to deploy an unzipped folder, all files in the folder are compressed first. The maximum size of uncompressed components in an unzipped folder is 600 MB or less depending on the compression ratio. If the files have a high compression ratio, you can migrate a total of approximately 600 MB because the compressed size</li> </ul> |

| Limit       | Description  |
|-------------|--|
|             | <p>would be under 39 MB. However, if the components can't be compressed much, like binary static resources, you can migrate less than 600 MB.</p> <ul style="list-style-type: none"> <li>• Metadata API base-64 encodes components after they're compressed. The resulting .zip file can't exceed 50 MB, which is the limit for SOAP messages. Base-64 encoding increases the size of the payload, so your compressed payload can't exceed approximately 39 MB before encoding.</li> <li>• You can perform a <code>retrieve()</code> call for a big object only if its index is defined. If a big object is created in Setup and doesn't yet have an index defined, you can't retrieve it.</li> <li>• Limits can change without notice.</li> </ul> |
| Change sets | Inbound and outbound change sets can have up to 10,000 files of metadata.  |

## SOQL and SOSL Limits for Search Queries

| Feature         | Limit                             | Limit Description  |
|-----------------|-----------------------------------|--|
| SOQL statements | Maximum length of SOQL statements | <p>By default, 100,000 characters. For details on SOQL statement limits, including information on queries that involve external objects, see <a href="#">Understanding Relationship Query Limitations</a>.</p> <p> <b>Note:</b> Long, complex SOQL statements, such as statements that contain many formula fields, can result in a <code>QUERY_TOO_COMPLICATED</code> error. The error occurs because the statement is expanded internally when processed by Salesforce, even though the original SOQL statement is under the 100,000 character limit. To avoid this error, reduce the complexity of your SOQL statement.</p> <p>Page layouts in Lightning with more than 250 fields can also cause a <code>QUERY_TOO_COMPLICATED</code> error. Lightning uses auto-generated SOQL to retrieve fields for a record page layout, so the error can occur even if there isn't any customer-written SOQL.</p> <p>The character limit can also be reached by including too many currency fields. Currency fields require SOQL to use a format method, roughly doubling the field API name length for each currency field.</p> <p>The SOQL statement character limit does not apply when using SOQL with dynamic Apex.</p> |

| Feature                        | Limit   | Limit Description   |
|--------------------------------|---|---|
|                                | Maximum number of junction IDs                    | 500 IDs per query. If a query includes 501 or more junction IDs, the query fails and returns the <code>MALFORMED_QUERY</code> exception.  |
| SOQL <code>WHERE</code> clause | Strings in SOQL <code>WHERE</code> clauses        | 4,000 characters for each string within a <code>WHERE</code> clause.  |
| SOQL query results             | Maximum rows returned                             | 2,000 results per request (API version 28.0 and later), unless you specify custom limits in the query. This limit includes results from child objects. Previous API versions return 200 results. When a query is executed from within an Apex class, additional limits apply. See <a href="#">Apex Governor Limits</a> for more information.  |
|                                | Availability                                      | 2 days, including results in nested queries.  |
| SOQL query timeout             | Maximum runtime for a SOQL query                  | 32 minutes total for both executing the operation and processing the results, but a query can time out at either the execution or processing stage. A query operation has 2 minutes to execute and 30 minutes to process results before timeout occurs.   |
| SOSL statements                | Maximum length of SOSL statements                 | By default, 100,000 characters. This limit is tied to the SOQL statement character limit defined for your org.  |
| SOSL search query strings      | Maximum length of <code>SearchQuery</code> string | If the <code>SearchQuery</code> string is longer than 10,000 characters, no result rows are returned. If <code>SearchQuery</code> is longer than 4,000 characters, any logical operators are removed. For example, the <code>AND</code> operator in a statement with a <code>SearchQuery</code> that's 4,001 characters defaults to the <code>OR</code> operator, which could return more results than expected.  |
| SOSL query results             | Maximum rows returned                             | 2,000 results total (API version 28.0 and later), unless you specify custom limits in the query. This limit includes results from child objects. Previous API versions return 200 results.  |
| Relationship queries           | Relationship query limits                         | <ul style="list-style-type: none"> <li>• No more than 55 child-to-parent relationships can be specified in a query. A custom object allows up to 40 relationships, so you can reference all the child-to-parent relationships for a custom object in one query.</li> <li>• A single query of polymorphic fields can count multiple times against the child-to-parent relationship limit. For more information, see <a href="#">Understanding Relationship Query Limitations</a>.</li> <li>• No more than 20 parent-to-child relationships can be specified in a query.</li> </ul> |

| Feature                    | Limit                                    | Limit Description   |
|----------------------------|--|---|
|                            |  | <ul style="list-style-type: none"> <li>In each specified relationship, no more than five levels can be specified in a child-to-parent relationship. For example, <code>Contact.Account.Owner.FirstName</code> (three levels).</li> <li>In API version 57.0 and earlier, only two levels of parent-to-child relationship can be specified in a query.</li> <li>In API version 58.0 and later, up to five levels of parent-to-child relationship can be queried via REST, SOAP, and Apex query calls for standard and custom objects. SOQL queries with five-level parent-to-child relationships aren't supported for big objects, external objects, or Bulk API and Bulk API 2.0.</li> </ul> |
| FOR VIEW and FOR REFERENCE | Maximum RecentlyViewed records allowed   | The RecentlyViewed object is updated every time the logged-in user views or references a record. It is also updated when records are retrieved using the <code>FOR VIEW</code> or <code>FOR REFERENCE</code> clause in a SOQL query. To ensure that the most recent data is available, RecentlyViewed data is periodically truncated down to 200 records per object. RecentlyViewed data is retained for 90 days, after which it is removed on a periodic basis.  |
| OFFSET clause              | Maximum number of rows skipped by OFFSET | The maximum offset is 2,000 rows. Requesting an offset greater than 2,000 results in a <code>NUMBER_OUTSIDE_VALID_RANGE</code> error.   |

## Visualforce Limits

| Limit   | Value           |
|---|-----------------|
| Maximum response size for a Visualforce page  | Less than 15 MB |
| Maximum view state size in a Visualforce page   | 170KB           |
| Maximum size of a Visualforce email template  | 1 MB            |
| Maximum file size for a file uploaded using a Visualforce page                                  | 10 MB           |
| Maximum size of HTML response <i>before</i> rendering, when Visualforce page is rendered as PDF | Less than 15 MB |
| Maximum PDF file size for a Visualforce page rendered as a PDF                                  | 60 MB           |
| Maximum total size of all images included in a Visualforce page rendered as a PDF               | 30 MB           |
| Maximum header size of a Visualforce page   | 8,192 bytes     |

| Limit   | Value                              |
|---|------------------------------------|
| Maximum request size of a JavaScript remoting call  | 4 MB                               |
| Default timeout for a JavaScript remoting call  | 30,000 milliseconds (30 seconds)   |
| Maximum timeout for a JavaScript remoting call  | 120,000 milliseconds (120 seconds) |
| Maximum rows retrieved by queries for a single Visualforce page request   | 50,000                             |
| Maximum rows retrieved by queries for a single Visualforce page request in read-only mode   | 1,000,000                          |
| Maximum collection items that can be iterated in an iteration component such as <code>&lt;apex:pageBlockTable&gt;</code> and <code>&lt;apex:repeat&gt;</code>                   | 1,000                              |
| Maximum collection items that can be iterated in an iteration component such as <code>&lt;apex:pageBlockTable&gt;</code> and <code>&lt;apex:repeat&gt;</code> in read-only mode | 10,000                             |
| Maximum field sets that can be displayed on a single Visualforce page.  | 50                                 |
| Maximum field sets allowed per sObject.   | 2,000                              |
| Maximum fields through lookup relationships allowed per field set.  | 25                                 |
| Maximum records that can be handled by StandardSetController  | 10,000                             |

## Platform Event Allocations

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Check out allocations for platform events, change data capture events, and Pub/Sub API.

### Platform Event Allocations

Learn about the allocations for platform events including platform event definitions, event publishing, and event delivery.

### Change Data Capture Allocations

Learn about the allocations for change events including the number custom channels, selected entities in a channel, and event delivery.

### Pub/Sub API and Event Allocations

Learn about the allocations related to publishing and subscribing to platform events and change events with Pub/Sub API.