☰

DeveloperCenter

🔍 Search

Knowledge Services Overview

◂ Back

ℹ **Recent Announcements** ✖

⛓ APIs › Platform API › API Resources › Knowledge › Knowledge Services Overview

Knowledge Services Overview

Knowledge Services are a set of AI-powered services that enable you to build sophisticated knowledge bases. You can search intelligently the knowledge bases using the Knowledge Services APIs.

To get a knowledge service up and running
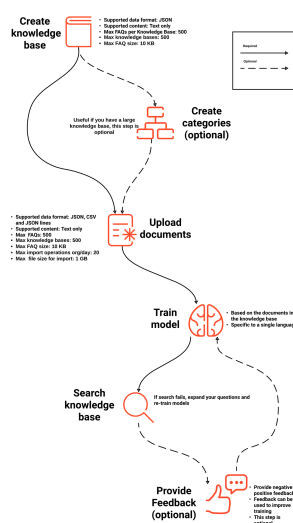
1. Create a knowledge base. Use the knowledge base as a library for your FAQs.
2. (Optional) Create categories for your content. If you created a large knowledge base, create categories and use them to tag your documents. This step helps to improve the accuracy of the search results.
3. Add FAQ documents to your knowledge base and, optionally, tag the documents with categories. You can either:
   - Upload documents to the knowledge base.
   - Import files (optionally tagged with categories) to the knowledge base.
4. Train a model on the FAQ documents that will be indexed. Training a model is an asynchronous process that generally takes 1–3 minutes to complete.
5. Search the knowledge base.
6. (Optional) Provide feedback to the search results. This optional step improves the training of the model and further search results.

When the steps 1-4 are completed, use the knowledge services API to search the knowledge base and answer your users' questions or keywords. Note that each search result includes a confidence score. The confidence score is a 0–1 correlation value to the search query.

> **Important**
> - The maximum payload size for any request is **3 MB** although files up to 1 GB size can be uploaded using the document uploads and import endpoints.

Create and manage knowledge bases

A knowledge base is used as a library of stored information (FAQs) that can be searched to answer customers' questions.

First, create a knowledge base. Use the POST /api/v2/knowledge/knowledgebases query. Keep track of the knowledge base ID returned in the response. You need it to manage the knowledge base and to add FAQ documents later on.

Submit Feedback
Cookie Preferences

Follow @GenesysCloudDev

> **Important**
> - The maximum number of knowledge bases per Genesys Cloud organization is **500**.
> - The value of the `coreLanguage` parameter must match the format `language-LOCALE`, where `language` is a two-character string and `LOCALE` is an uppercase two-character string, for example, **en-US, en-UK**. **Note:** For now, the knowledge services APIs only support the **en-US** and **de-DE** values for `coreLanguage`.

The following APIs are also available for managing knowledge bases:

- Get a given knowledge base:
  GET /api/v2/knowledge/knowledgebases/{knowledgeBaseId}
- Get the list of knowledge bases:
  GET /api/v2/knowledge/knowledgebases
- Update a knowledge base's name, description, and core language:
  PATCH /api/v2/knowledge/knowledgebases/{knowledgeBaseId}
- Delete a knowledge base:
  DELETE /api/v2/knowledge/knowledgebases/{knowledgeBaseId}

Create and manage categories

Use categories to tag documents for a given knowledge base and a given language, in particular if you created a large knowledge base. Each category should contain a group of FAQ documents that share similar content or characteristics. For example, you can create a category for documents that relate to home loans, another category for documents that relate to insurance policies, and so on.

If you created a large knowledge base, Genesys recommends to create categories and tag documents. Categories help to improve the accuracy of the search results.

> **Important**
> - The maximum number of supported categories per knowledge base is **1000**.
> - The maximum number of supported categories per document is **20**.
> - Each category name must be **unique** across the knowledge base.

To create a category, use the following POST operation:
POST /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/categories

The response contains the category information created in the knowledge base, including the ID that you can use later to tag documents. When you upload or import documents, you can link them to one or more categories using the category ID.

> **Note:** You can create sub-categories by specifying the ID of the parent category in the create or update request.

The following APIs are also available for managing categories:

- Get a list of categories a given knowledge base and language:
  GET /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/categories
- Get a category:
  GET /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/categories/{categoryId}
- Update a category (name, description, parent):
  PATCH /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/categories/{categoryId}
- Delete a category:
  DELETE /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/categories/{categoryId}

Upload FAQ documents

DeveloperCenter

Q

Knowledge Services Overview

◂ Back

Now that you have created a knowledge base, you can add FAQ documents. A FAQ document associates a Frequently Ask Question (FAQ), the corresponding answer, and its alternative questions with a document's external URL and, optionally, a list of category IDs.

Important:

- The supported data format for uploads is **JSON**. See Import documents for **CSV** and **JSON Lines** file formats.
- The maximum number of FAQs in the knowledge base is **500**.
- The maximum number of FAQs in a single bulk upload request is **50**
- The maximum file size for a FAQ document is**10 KB**
- The maximum number of uploads per organization per day: **20**
- The maximum number of uploads per organization per month: **150**

Write FAQs as fully descriptive questions and answers to effectively train a model and search the knowledge base. Here are some examples:

- **Do**: What is your favorite color?
- **Don't**: What is your favorite?
- **Do**: How many coins do you have in your pocket?
- **Don't**: How many coins?

For more information about writing FAQs, see How to write a good FAQ.

To upload (or create) the FAQ document, use the following POST request:
POST /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents

---

Important:

- The maximum number of FAQs supported for a bulk upload request is **50**.
- The maximum file size per upload is **10 KB**.
- The maximum number of uploads per organization and per day is **20**.
- The maximum number of uploads per organization and per month is **150**.
- The maximum payload size for any upload request is **3 MB**.

The following APIs are also available for managing the uploads of FAQ documents:

- Update and/or upload multiple documents, also referred as bulk, to a knowledge base:
  PATCH /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents

---

Important:

- The maximum number of FAQs supported for a bulk upload request is **50**.

- Update a single document:
  PATCH /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents/{documentId}
- Get the list of documents for a given knowledge base, optionally filtered by one or more categories:
  GET /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents
- Get a document:
  GET /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents/{documentId}
- Delete a document:
  DELETE /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents/{documentId}

File Imports

You can also add FAQ documents to a knowledge base using the import operation. When you import the

Submit Feedback
Cookie Preferences

documents, you get the option to validate the file before the actual import. Once the validation is done, the documents can be imported within the selected knowledge base. Note that, optionally, you can tag the documents with categories.

Important

- You can import **text only**. Rich medias such as images and video are not supported.
- The supported file formats for the import operation are **CSV, JSON Lines**.
- If you use a comma "," as a delimiter character in your CSV file, to ensure a correct import, enclose the question, answer, or alternative question, in double-quotes.
  For example:
  Question: "What is a good insurance for cars and, in winter, bikes?"
  Answer: "Depends on several criteria, like horsepower, location, and so on."
- The maximum supported size for an uploaded file using import is **1 GB**.

To import a file, create a pre-signed URL to upload your file: POST /api/v2/knowledge/documentuploads

The returned response includes an `uploadKey` value required to actually start the import operation using the following query:
POST /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents/imports

The response of the import query contains a status report of the import operation and the associated import ID that you can later use to get a status update.

The following APIs are also available for importing documents:

- Start the import operation:
  PATCH /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents/imports/{importId}
- Get the status of an import operation:
  GET /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents/imports/{importId}
- Delete an import operation:
  DELETE /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/documents/imports/{importId}

Training models

You must train models on the FAQ documents of the knowledge base.

- Training a model is an asynchronous process that generally takes 1–3 minutes to complete.
- You can have multiple trained models within a knowledge base, one for each locale and language extracted from the `coreLanguage` values available for the knowledge base.
- Once a model is trained, the search queries return documents based on the latest trained and active model.

The possible statuses for a model training are the following: `Draft, Active, Discarded, Archived`.

To start training a model, use the following query:
POST /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/trainings

---

Important:

- The minimum number of FAQ documents required to train a model and search the knowledge base is **5**.

The following APIs are available to follow up on model trainings:

- Get the training's status and details:
  GET /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/trainings/{trainingId}
- Get a list of trainings optionally filtered by their status. Models are sorted by date in descending order. The most recent training appears first.

☰

DeveloperCenter

🔍

Knowledge Services Overview

◂ Back

GET /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/trainings

If the training result is satisfying, promote the training from `Draft` to `Active status`:

POST /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/languages/{languageCode}/trainings/{trainingId}/promote

If not, refer to the Common training errors section below, fix and update your FAQs documents, and train the model again.

Common training errors

Sr. No.	Error	Fix. / Error Explanation
1	Minimum no of FAQs required to train the model is 5, no of FAQ(s) provided is "{number}"	The training operation failed because the knowledge base does not contain enough FAQs. Make sure to have at least five FAQs in the knowledge base for training.
2	The following FAQ had a question: "{question}" that is not amenable for AI modeling. Please refer Genesys documentation for rephrasing the FAQs.	The error is due to an incomplete or badly constructed **question** in the highlighted FAQ. To solve the issue, Add more usable words to the question. For more information about writing FAQs, see How to write a good FAQ. For example: • What is the policy? — `incomplete` • What is the refund policy for the failed transactions? — `properly constructed question` • timings — `incomplete` • What are normal office hours? — `properly constructed question`
3	The following FAQ : "{question}" had an answer that is not amenable for AI modeling. Please refer Genesys documentation for rephrasing the FAQs.	The error is due to an incomplete or badly constructed **answer** in the highlighted FAQ. To solve the issue, add more usable words to the answer. For help about writing FAQs, see How to write a good FAQ. For example: • Question - Do you provide gears for kids? • Answer - No — `incomplete` • Question - Do you provide gears for kids? • Answer - No. Currently we do not provide gears for kid. — `properly constructed answer`

Submit Feedback
Cookie Preferences

Sr. No.	Error	Fix. / Error Explanation
4	FAQs in the knowledge are not adequately constructed. Please refer Genesys documentation for rephrasing the FAQs.	In this scenario, one or more FAQs are either containing stop words or repeating the same information using the same words. For example: **Repeated FAQs** • Q - What are the office hours? • Q - Timing of the office? • Q - What are the working hours? • Q - Work timings? • Q - Operational hours? The above 5 FAQs together do not provide enough vocabulary to train the model. **Only containing stop words** • Q - Where else to go? • A - Nowhere.
5	Internal error. If the problem persists, please contact support.	Contact Genesys Knowledge Support Team

Knowledge base search

To get a response to your customer's question, search the knowledge base. Once a model is trained, the search queries return documents based on the latest trained and active model.

When you search the knowledge base, the response includes the documents that matched the query. For each document, you get the associated confidence score that indicates the correlation between the query and the document. The confidence score is a 0–1 correlation value to the search query.

Use the following query to get responses or pages of responses:
POST /api/v2/knowledge/knowledgebases/{knowledgeBaseId}/search

Provide feedback

Optionally, you can provide negative or positive feedback for the documents returned in the search results. This feedback improves the training of the model and further search results.

Response codes

The following table defines all possible response codes.

Code	Description
200	Success
204	No content
400	The request could not be understood by the server due to malformed syntax.
401	No authentication bearer token specified in authorization header.
403	You are not authorized to perform the requested action.
404	The requested resource was not found.
415	Unsupported media type - Unsupported or incorrect media type, such as incorrect Content type value in the header.

⊖

≡

Developer**Center**

Q

**Knowledge Services
Overview**

◂ Back

Code	Description
429	Rate limit exceeded the maximum [%s] requests within [%s] seconds.
500	The server encountered an unexpected condition that prevented it from fulfilling the request.
503	Service unavailable - the server is currently unavailable (because it is overloaded or down for maintenance).
504	The request timed out.

Submit Feedback
Cookie Preferences