Case Categorization

Use machine learning to automate the case categorization process.

Save agents' time by automatically categorizing cases for your most commonly used case categories. Machine learning analyzes your past cases and category catalog to learn how cases are categorized in your organization. Once you train and activate the model and if the confidence thresholds are met, the system automatically populates the proposals into the case category.

Case categorization increases agent productivity, provides better prioritization of incoming cases and automatic classification based on model accuracy.

Case categorization is currently supported in the following languages:

- Chinese
- English
- French
- German
- Japanese
- Portuguese
- Russian
- Spanish

Prerequisites

- Data volume: Includes minimum 1000 categorized cases and an additional 300 instances of each category or subcategory values
- Data quality: Includes subject, description, and proper category

Case Intelligence Readiness Report

Use the readiness report to analyze your case data to determine if you can get useful predictions for case categorization.

Before you start creating and training the Case Categorization model, you must run the readiness report.

Find the readiness report under Settings All Settings Machine Learning Intelligent Service Case Categorization. Select Readiness Report at the top right.

When the check is complete, the readiness report displays one of the following status:

- Ready to use machine learning
- Data improvements required
- Requirements not fulfilled

Each readiness factor shows you the minimum required value, the recommended value, and the actual value in your system. You can adjust the data in your system to meet the minimum and recommended thresholds and run the readiness check again. Each check factor should meet the recommended value to ensure reliable prediction results. If the check factor value falls between the minimum value and the recommended value, the report shows a caution. If the value is less than the minimum value, the report shows an error message. You can still proceed with the training, however the prediction result will be of lower accuracy.

Note

The data volume, or total number of objects (cases) shown is an approximate number of case records from the previous 12 months that could potentially be used to train the machine learning model.

Example

Let's look at a simplified example for case categorization readiness.

Suppose you have 10 categories in your service category catalog. The readiness report shows that only 33% (3) of these categories are assigned to the required number of cases to meet the qualification threshold. The percentage is below the recommended minimum threshold. However, 80% of your qualifying cases are assigned to these three categories. If you train a model based on this data you can potentially automate up to 80% of your incoming cases, despite using only 33% of your category catalog. In this case, machine learning could still yield significant agent productivity gains.

Configure Case Categorization

As an administrator, you must add, train, test, and activate the Case Categorization model.

Procedure

1. Navigate to your user profile, and select Settings All Settings Machine Learning Intelligent Service Case Categorization.
2. Under Case Categorization, click the create icon (□) to add a model.
3. Enter a name for your model.
4. Use up to four levels of categories to categorize cases.
5. Click Save.

A new model is added with status Created.

6. Locate your model and click Train from the Actions (□) menu to start training the model.

Note

If you update your service category catalog you must map new category IDs to existing categories and retrain your model.

   a. Select the model for which you want to update the category mapping.
   b. Click Download Mapping to download the existing category mapping of the model.

Note

The model does not have a mapping document, click Prepare Mapping to create one and then download it.

c. Edit the category listing as required and upload the updated mapping document.

d. Click Save.

e. Select Train to retrain the model.

The training takes time to complete depending on the volume of the historical data. The mode goes through the following statuses during the training: Created Training in Preparation Data Extraction is Pending Data Extraction is in Progress Data Preprocessing is Pending Data Preprocessing is in Progress Training Triggered Training is Pending Training in Progress Training Completed or Training Failed Active or Inactive.

The system stops the training if data extraction fails and updates the status as Data Extraction Failed.

You can refresh and update the training status of the model by selecting Get Status from the Actions (⍰) menu.

7. After the training is complete, click Activate from the Actions (⍰) menu to activate the model.

You can deactivate a model by selecting Deactivate.

Note

You can enable automated recommendations using the Enable toggle button in the Settings tab of your model. Adjust the confidence level for automated prediction. The default value of the confidence level slider is 60 in the solution.

Restriction

You cannot add new categories from the settings dialog. You can only deselect, or select the categories you included during model creation.

Note

You can use the test console to test if the model is functioning correctly. Select your model, enter a description in the Input field and click Test.

The test console invokes the prediction model API using the sample case data you provide.

- The model considers the content of both the case Subject and Description fields. To test, combine text from both fields in the input box, or into one cell in the spreadsheet file. For testing purposes, a single entry has a limit of 1000 characters. In actual use, the model analyzes all text in the subject and description. Entries in the upload file don’t have a maximum character limit.
- You can test the model quality from the test console by activating the model, but set the automation Enabled toggle to No in the model settings. With automation disabled, the

activated model doesn’t start categorizing tickets in your productive system, but can be tested in the console. Testing with automation disabled can be useful if you have data quality issues with your test tenant, but good quality data in your production system.

Case Categorization Test File Example

Case ID	Description
12341	Are boxes allowed as checked luggage?
12342	Pump is making a loud noise when activated.
12343	Coffee maker is making cold coffee!

View Case Categorization Prediction

Find category prediction results in cases.

Procedure

1. Go to Cases.
2. Create a new case and enter the subject and description fields.
3. Select Save.

Case categorization prediction works for all case creation channels such as manual, e-mail, social media, chat, messaging, and so on. The main usage for case category prediction is for cases generated from incoming e-mail messages. Cases are categorized during case creationg. You will only see predictions for cases created after the model is set to active status.