



Creating the Upload Model Parameters to Cloud Job

How-to

Compatible versions: 5.4, 5.5

Works with: [Fusion](#)

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In Fusion 5.4, you can use the Upload Model Parameters to Cloud job to store a trained model's training to a blob in cloud storage.

This document describes the steps to create the Upload Model Parameters to Cloud job and deploy a model with it.

See [Upload Model Parameters to Cloud](#) to learn more about the Upload Model Parameters to Cloud job.

Deploy a model

First, deploy a [Smart Answers Supervised Model](#).

Create the job

1. In the **Collections > Jobs** menu, click **Add +** and select **Upload Model Parameters to Cloud** to create a new instance of that job.
2. Set the job ID to `upload-cloud` (or something appropriate for your model) and find the name of the deployed model in the **Model Name** text box.
3. Enter the **Cloud Path** to direct to the location you would like to store the parameters blob in.

You will also need to provide the Kubernetes secret that provides the access details for the



The exported file will also have the version number (based on epoch time) of the model appended to it.

Caution

Take note of the full cloud path; you will need it to deploy the job later.

Run

Job History

Cancel

Save

Explore

upload-cloud (Upload Model Parameters To Cloud)

Upload a trained model's parameters to cloud storage

Advanced

JOB ID *

upload-cloud

The ID for this job. Used in the API to reference this j...

MODEL NAME *

model-to-upload

The model name of the Seldon Core deployment to u...



CLOUD PATH

gs://modeluploadbucket/modelparam

Path to cloud storage location that will contain the s...

KUBERNETES SECRET NAME FOR CLOUD STORAGE ACCESS

model-cloud-secret

Defines the Kubernetes secret that will be used to access cloud storage

GCS

1. Obtain the Google Cloud Storage credentials JSON file for accessing the storage bucket you intend to use for transferring models.
2. Add the credentials JSON file as a secret with the following command:

```
kubectl create secret generic model-cloud-secret --from-file=credentials.json -n [NAMESPACE]
```

Copy

S3

1. Create a JSON file with the following keys:



```
{
  "key": [KEY],
  "secret": [SECRET],
  "region": [REGION]
}
```

[Copy](#)

2. Upload the JSON file as a secret in the cluster:

```
kubectl create secret generic model-cloud-secret --from-file=model.json -n [NAMESPACE]
```

[Copy](#)

The secret can now be referenced as `model-cloud-secret` in the job configuration.

Azure Blob Storage

1. Create a JSON file with the layout below:

```
{
  "key": [KEY],
  "secret": [SECRET]
}
```

[Copy](#)

2. Create the `model-cloud-secret` secret in the Kubernetes cluster:

```
kubectl create secret generic model-cloud-secret --from-file=model.json -n [NAMESPACE]
```

[Copy](#)

Deploy a new model with the Upload Model Parameters job

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If you are planning on transferring a model to a different cluster, note that you will need to set up the Kubernetes secrets in that cluster as well, though the access for deploying can be limited to read-only.

1. Create a new **Create Seldon Core Model Deployment** job and toggle **Advanced**.
2. Enter the full cloud path, including the version number, in the *Cloud Path* box.
3. Enter the Kubernetes secret that will be used to access the path in the *Kubernetes Secret Name for Cloud Storage Access* box.
4. For this example, you will be using the job to deploy a trained Smart Answers model, so use the `fusion-question-answering-seldon:5.4.0` model image from the `lucidworks` repository in the *Image Name* box.

Create Seldon Core Model Deployment

Deploys a Seldon Core Model into the Fusion cluster

Cancel Save

Advanced ☒

JOB ID ^{*}
deploy-cloud-params-model
The ID for this job. Used in the API to reference this job. Allowed characters: a-z, A-Z, dash (-) and underscore (_)

ADDITIONAL PARAMETERS
Provide additional key/value pairs to be injected into the training JSON map at runtime. Values will be inserted as-is, so use " to surround string values

WRITE OPTIONS
Options used when writing output to Solr or other sources

READ OPTIONS
Options used when reading input from Solr or other sources.

MODEL NAME ^{*}
new-model
The model name of the Seldon Core dep...

MODEL REPLICAS
1
How many replicas of the model should ...

DOCKER REPOSITORY ^{*}
lucidworks
Defines the Docker repository where the...

IMAGE NAME ^{*}
fusion-question-answering-s
Name of the model's docker image

Kubernetes secret name fo...

OUTPUT COLUMN NAMES FOR MODEL
[output1, output2]
A list of column names that the model generates which the ML Service w...

CLOUD PATH
gs://modeluploadbucket/modelparameters-v16172
Path to cloud storage location that contains the saved parameters for thi...

KUBERNETES SECRET NAME FOR CLOUD STORAGE ACCESS
model-cloud-secret
Defines the Kubernetes secret that will be used to access cloud storage

4. Run the job. Confirm that the model deploys into the cluster and is running.