

Setting Up SAM's Environment

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Streaming Analytics Manager Environment Setup and Managing Stream Apps

The information in this chapter focuses on the following operational tasks, suited for the operations persona. When you access Streaming Analytics Manager (SAM) for the first time, you must perform two operations tasks to get started

- Creating service pools
- Creating environments

Subsequent subsections walk through each of these steps.

Managing Service Pools

A Service is an entity that an application developer works with to build stream apps. Examples of services include a Storm cluster to which you want to deploy the stream application, a Kafka cluster that stream application uses to create a streams, or an HBase cluster to which the stream application writes.

A Service Pool is a set of services associated with an Ambari managed cluster. To manage service pools, hover over the **Configuration** tab and select the Service Pool menu item.

The Service Pool dashboard lists all existing service pools, and allows you to create new service pools.

Adding a New Service Pool

Before you begin

You have deployed an Ambari-managed HDF or HDP cluster.

Procedure

1. From **Configuration / Service Pool**, enter the rest endpoint URL for your Ambari managed cluster.

The syntax of this URL has the following form: `http://[AMBARI_HOST]:8080/api/v1/clusters/[AMBARI_CLUSTER_NAME]`.

Configuration / Service Pool

`http://nible0.field.hortonworks.com:8080/api/v1/clusters/streamanalytics` AUTO

2 Easy Steps to get started...

- 1 Add Ambari URL
In this format
`http://host:port/api/v1/clusters/cluster_name`
- 2 Click Add
Enter username & password
for your cluster

2. Click **Auto Add**.
3. You are prompted for Ambari credentials. Enter a valid username and password.

Results

SAM retrieves all of the services and creates a new pool. The name of the service pool is the name of the Ambari cluster.

SL Configuration / Service Pool

http://ambari_host:port/api/v1/clusters/CLUSTER_NAME Add

victoria
http://hdp/victoria0.field.hortonworks.com:8080/api/v1/clusters/victoria

STORM KAFKA AMBARI METRICS ZOOKEEPER

vettmcluster
http://hdp-gm-vett0.field.hortonworks.com:8080/api/v1/clusters/vettmcluster

HDFS HBASE HIVE ZOOKEEPER AMBARI METRICS

streaminsight
http://sam-superset0.field.hortonworks.com:8080/api/v1/clusters/streaminsight

HDFS ZOOKEEPER AMBARI METRICS

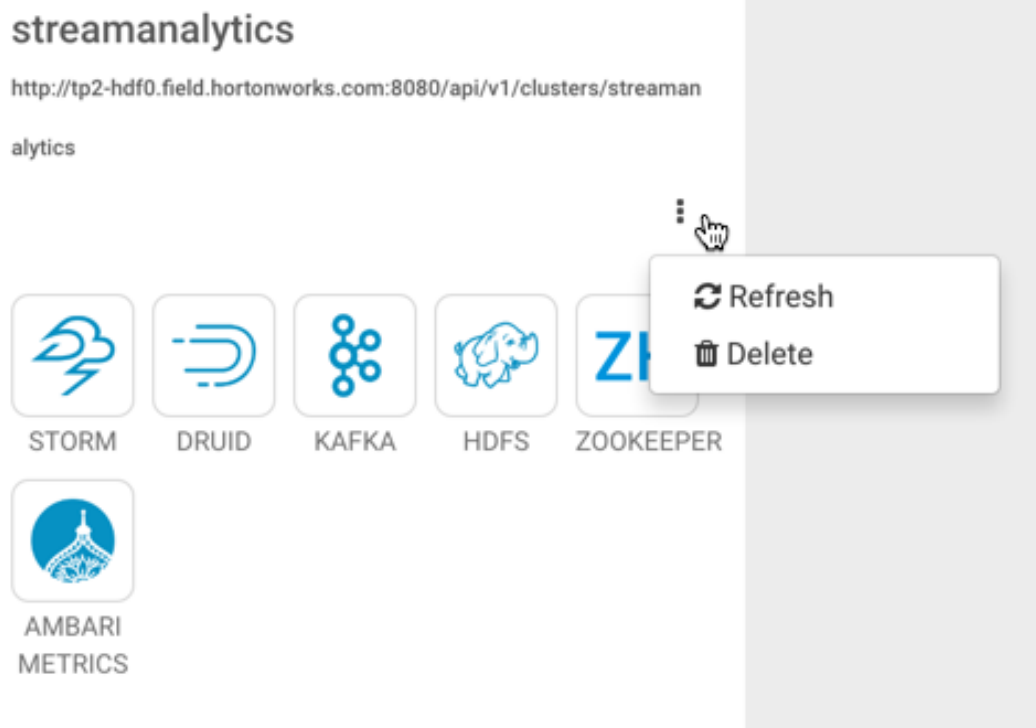
All big data services associated with ambari cluster are imported into service pool called victoria

Updating Service Pools

When a service pool is created, all of the configuration to manage and connect to the big data services in the pool are imported from Ambari into SAM. If a configuration associated with a service is changed in Ambari, you must manually update the service pool as well.

Procedure

1. From **Configuration / Service Pool**, click the **Options** dialog inside the service pool you want to refresh.
2. Click **Refresh**.



3. Provide your Ambari credentials and click **Ok**.

Managing Environments

An environment is a named entity that represents a set of services chosen from different service pools. A stream application is assigned to an environment. The application can only use the services associated with that environment.

To manage environments, hover over **Configuration** and select **Environments**.

The Environments dashboard lists all existing environments, and allows you to create a new Environment.

Create New Environment

To add a new environment:

Procedure

1. From **Configuration / Environments**, click the + icon.
2. Name the environment, choose the services that you want in the environment, and click **Ok**. Selected services are highlighted in blue.






















New Environment ⓘ

NAME *

DESCRIPTION *

SELECT SERVICES

(At least one streaming engine (eg: STORM) must be selected.)

victoria	vettpmcluster	streamline
 KAFKA	 KAFKA	 STORM
 STORM	 STORM	 KAFKA
 ZOOKEEPER	 HBASE	 HDFS
 AMBARI	 HDFS	 HBASE
 METRICS	 HIVE	 HIVE
	 AMBARI	 AMBARI
	 METRICS	 METRICS
	 ZK	 ZK
	ZOOKEEPER	ZOOKEEPER

What to do next

After an Environment is created, an application developer can create new stream applications, associate it with the environment, and use the big data services with the application.

Editing Environments

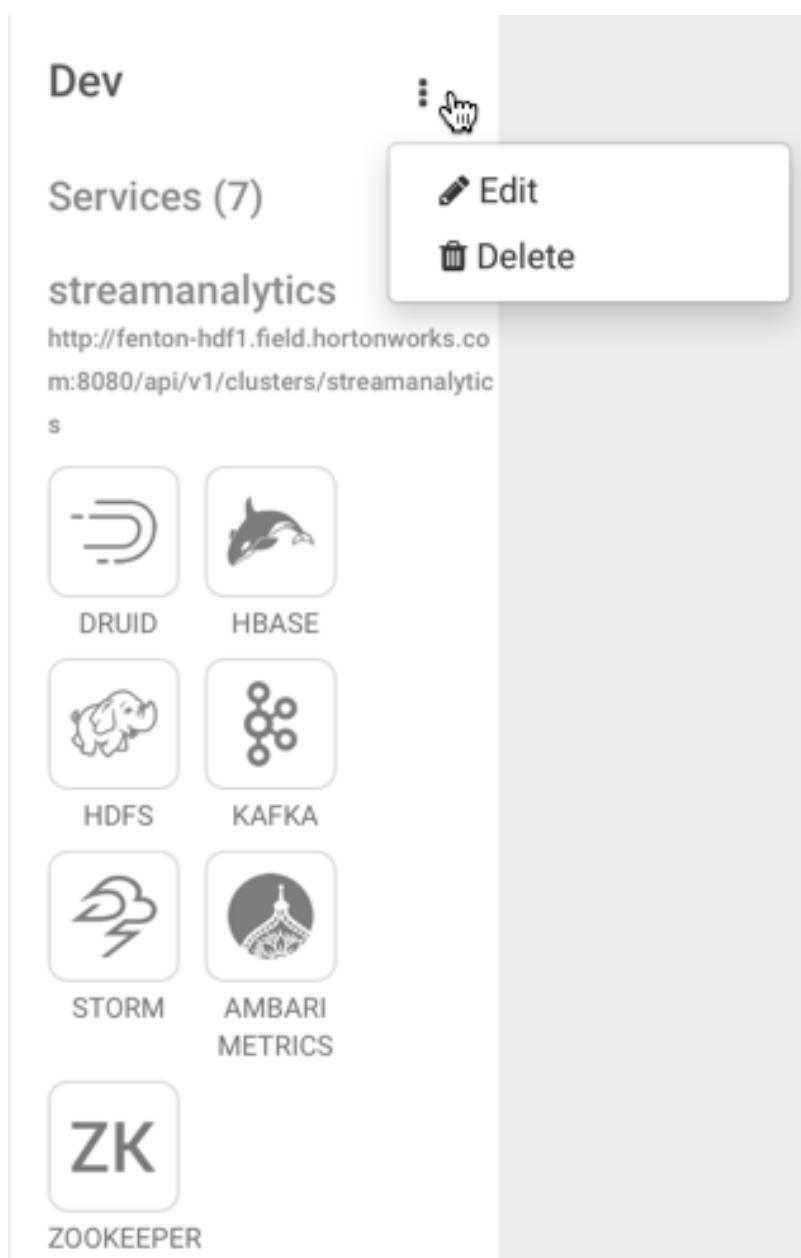
You can edit environments by clicking the **Options** icon in the environment box you want to edit.

About this task

When an environment is associated with an application, it cannot be deleted or updated.

Procedure

1. From **Configuration / Environments**, click the **Options** icon for the environment you want to edit.



2. The **Edit Environment** dialog displays. Add additional services or update the name and description of the environment and click **Ok**.

Deleting Environments

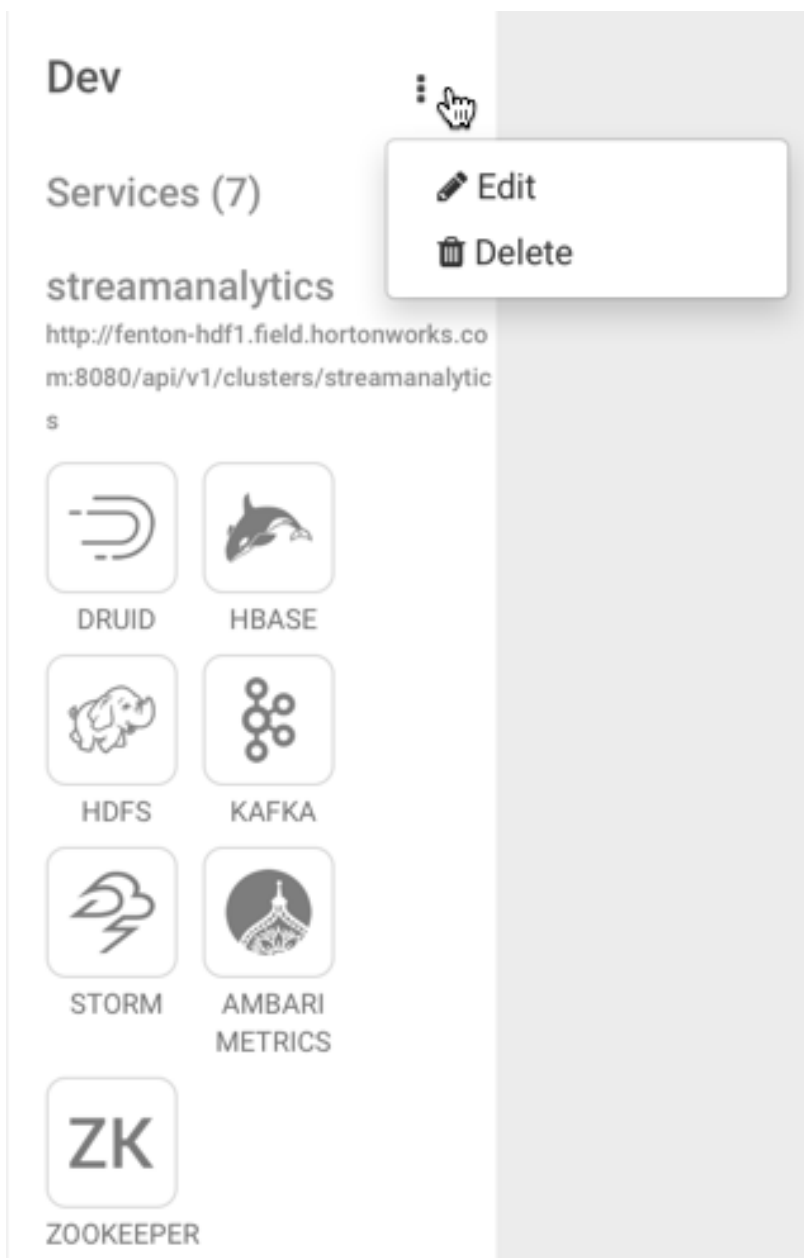
You can delete environments by clicking the **Options** icon in the environment box you want to delete.

About this task

When an environment is associated with an application, it cannot be deleted or updated.

Procedure

1. From **Configuration / Environments**, click the **Options** icon for the environment you want to delete.



2. Click **Ok** to confirm you want to delete your environment.