Using Streams Messaging Manager

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Monitoring Clusters

The Overview page provides you with tools to see a snapshot of the Kafka cluster you are monitoring.

Select the Cluster to Monitor

You can use SMM to monitor all the Kafka clusters in your environment. You can view information about Kafka cluster health and activity by selecting the cluster about which you want information.

1. From the left navigation pane, select **Overview**.
2. Select your cluster from the Cluster drop-down list.
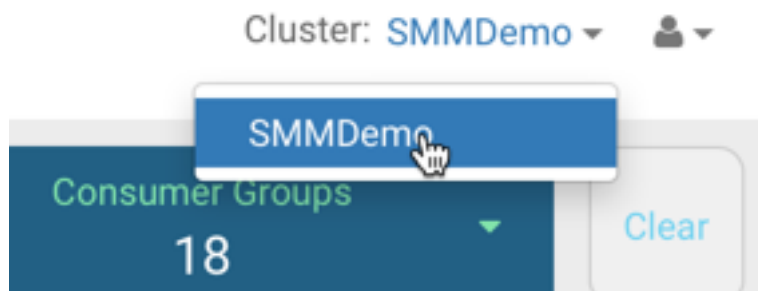

Viewing Cluster Overview Information

You can use the **Overview** tab to review information about your Kafka cluster. This page gives you information about total number of producers, brokers, topics, and consumer groups. It also provides more detailed metrics about producers and consumers.

Review the Producers, Brokers, Topics, and Consumer Groups information at the top of your page to understand how many of each are contained in your Kafka cluster.
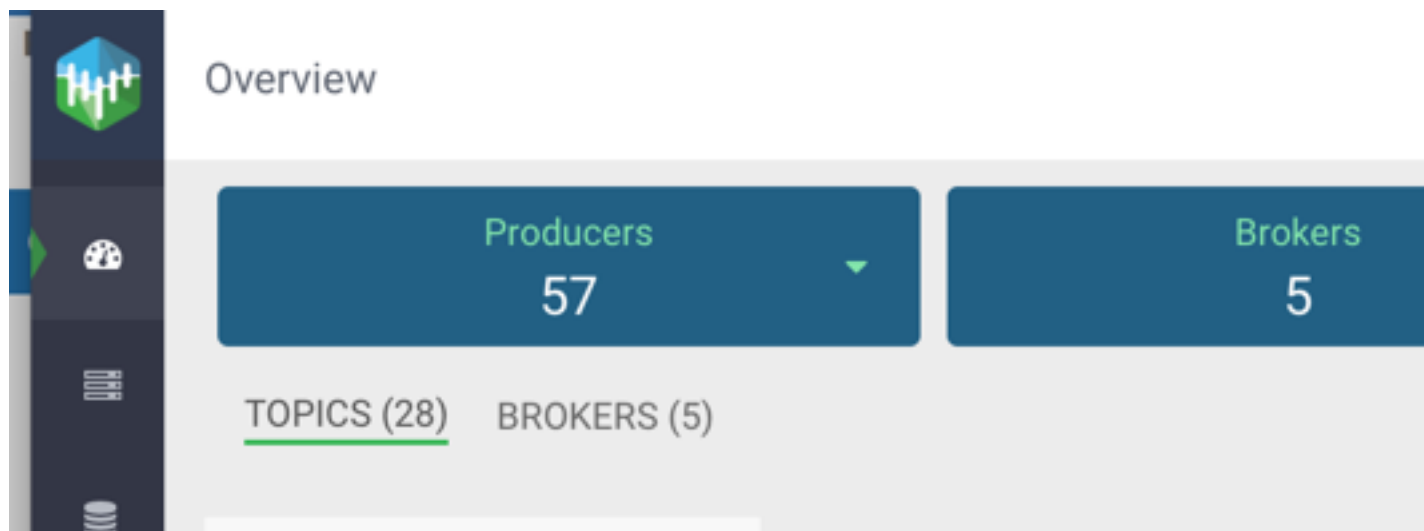
You can click the drop-down arrow in any of the boxes to view a list of Kafka resource. Select one or more Kafka resource to filter your view to just those resource. You can also search for a specific resource. You can click clear at any time to return to the full Overview.

Overview
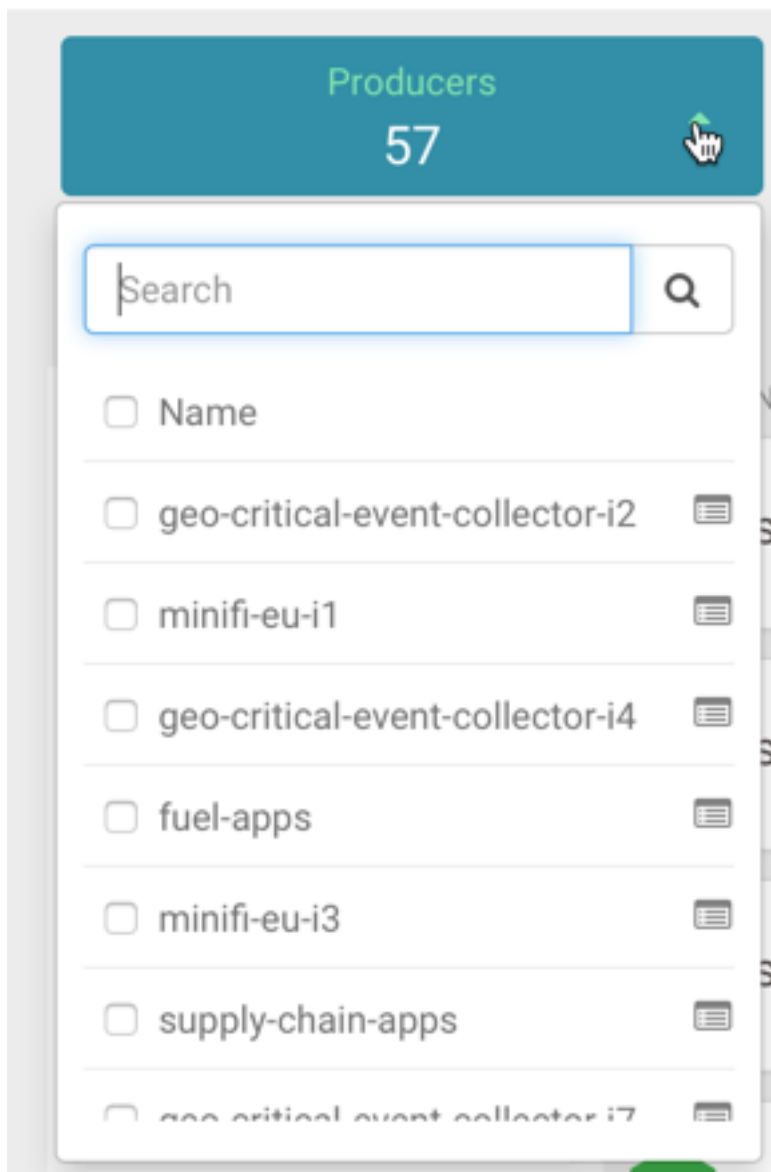
Monitoring Producers

Understanding Producer Naming Conventions

The Producers you interact with in SMM are named based on the client.id property you added when creating Kafka producers.

Active vs. Passive Producers

On the Overview page, Producers are referred to as active or passive. Producers are active when they are consuming messages over a designated time period.

On the Producers page, passive producers are referred to as inactive.

You can set the period of time after which a Producer is considered inactive in the Ambari Streams Messaging Manager Configs screen.

1. Select **Streams Messaging Manager** from the Ambari services pane.
2. Click **Configs** and select **Advanced streams-messaging-manager-common** from the **Advanced** tab.
3. Update **inactive.producer.timeout.ms** to change the period of time after which a Producer is considered inactive. This value is specified in milliseconds.

STREAMS MESSAGING MANAGER CONFIG   **ADVANCED**

Advanced streams-messaging-manager-common

AMS's Kafka Application Id	kafka_broker
AMS's protocol	{{ams_timeline_metrics_protocol}}
ams.timeline.metrics.truststore.password	{{ams_metric_truststore_password}}
ams.timeline.metrics.truststore.path	{{ams_metric_truststore_path}}
ams.timeline.metrics.truststore.type	{{ams_metric_truststore_type}}
consumer.group.refresh.interval.ms	300000
inactive.group.timeout.ms	1800000
inactive.producer.timeout.ms	1800000

Identifying a Producer State

There are two was to identify whether a producer is active or passive.
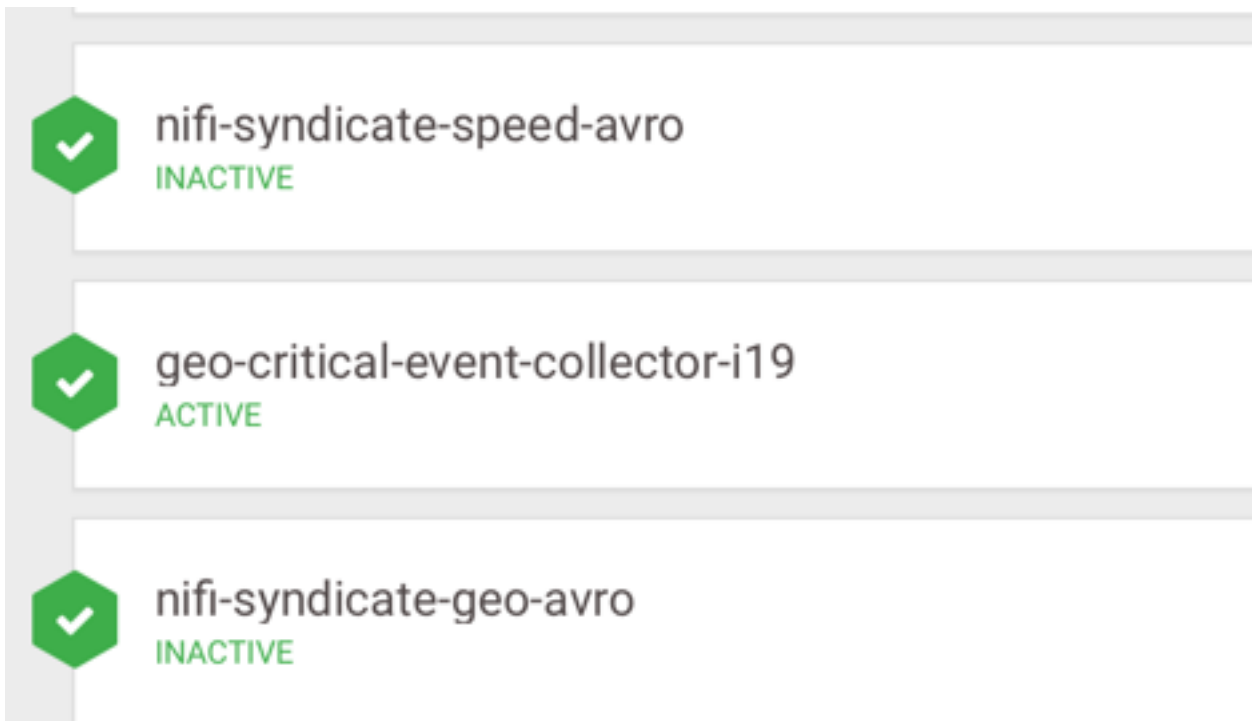
From the Overview page Producer pane, use the Active, Passive, and All tabs to view only active producers, only passive producers, or all of them. This allows you to see the total number of active and passive Producers.

From the Producers page, each producer is listed with the status visible.

Monitoring Topics

Viewing the Total Number of Topics in Your Cluster

You can see the total number of topics in your Kafka cluster on the **Overview** page.
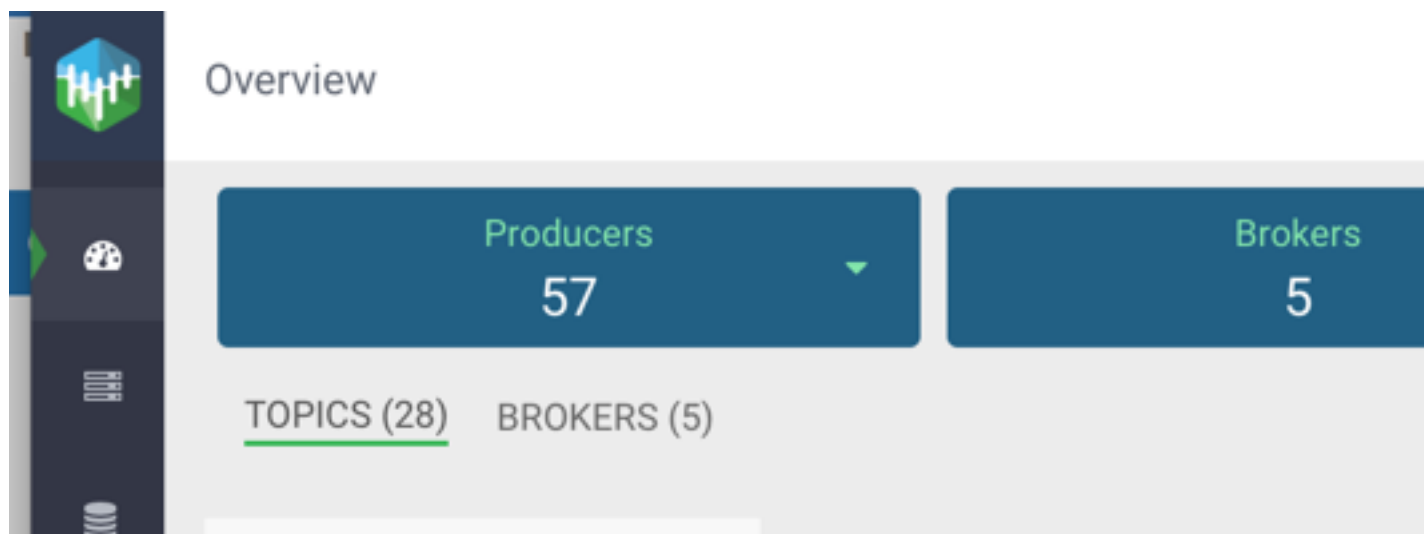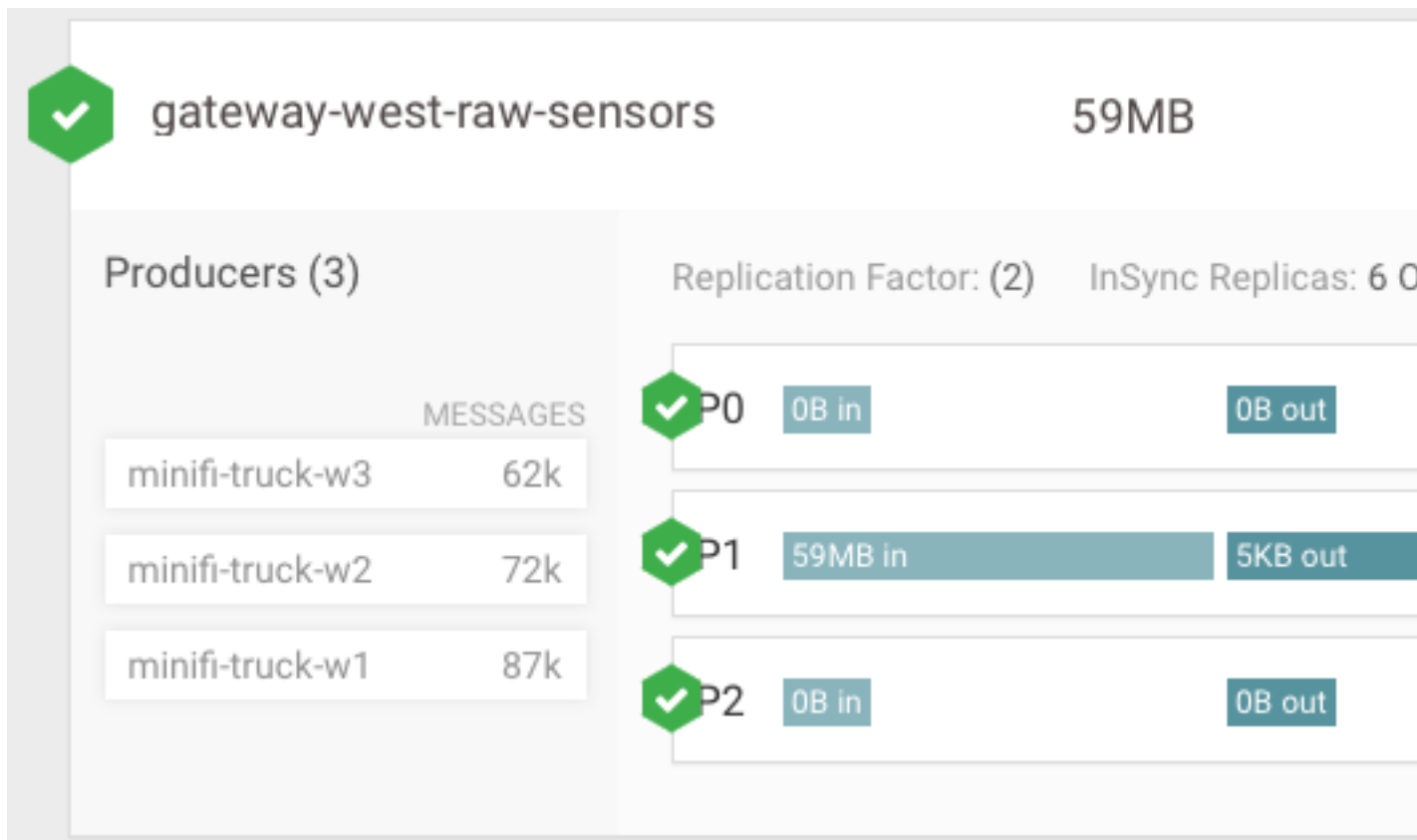

Detailed Information about Topics

The Topic page contains a number of useful details about your Kafka Topics. This page helps you answer the following questions:

- How can I see if the replicas in this Topic are in sync?
- How do I see this Topic's retention rate?
- How can I see the replication factor for this Topic?
- How do I see the Producers and Consumers that are connected to this Topic?
- How do I find the total number of messages going into this Topic, over a specified time range?

To access this detailed Topic information:

1. From the left navigation pane, click **Topics**.
2. Identify the Topic about which you want information. You can either scroll through the list of Topics, or use the Search bar at the top left of the page.
3. Click the green hexagon at the left of the Topic to view details.

Viewing Grafana Metrics for Your Topic

If Grafana is installed as part of your Ambari-managed target cluster, you can access detailed Grafana Metrics for Topics in your Kafka cluster.
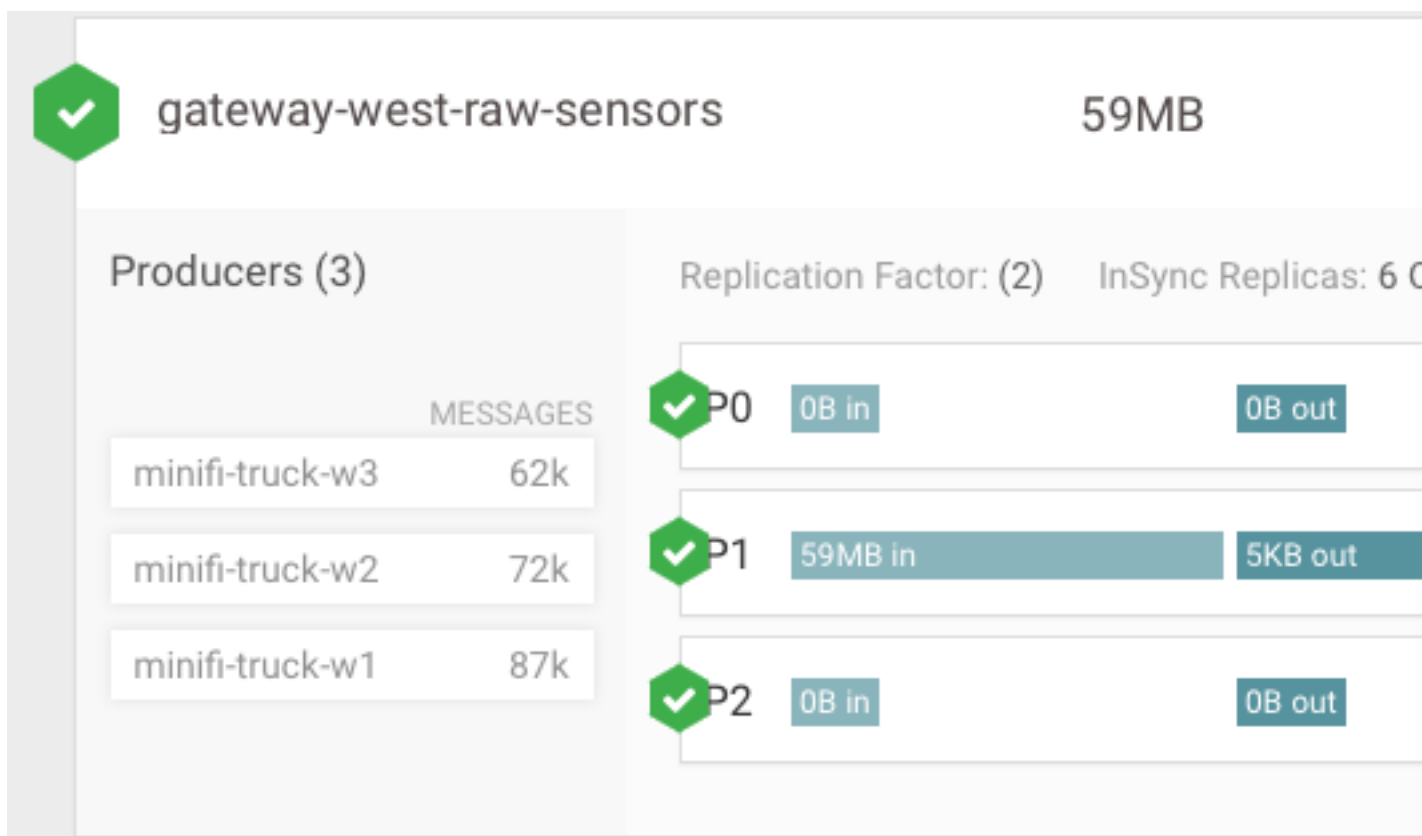
1. From the left navigation pane, click **Topics**.
2. Identify the Topic about which you want information. You can either scroll through the list of Topics, or use the Search bar at the top left of the page.
3. Click the Grafana icon in the top right of the Topic view.

Monitoring Brokers

Detailed Broker Information

The Brokers page contains a number of useful details about your Kafka Brokers. This page helps you answer the following questions:

- On what host is my Broker located?
- Is my Broker running out of disk space?

To access detailed Broker information:

1. From the left navigation pane, click **Brokers**.
2. Identify the Broker about which you want information. You can either scroll through the list of Brokers, or use the Search bar at the top left of the page.
3. Click the green hexagon at the left of the Broker to view details.
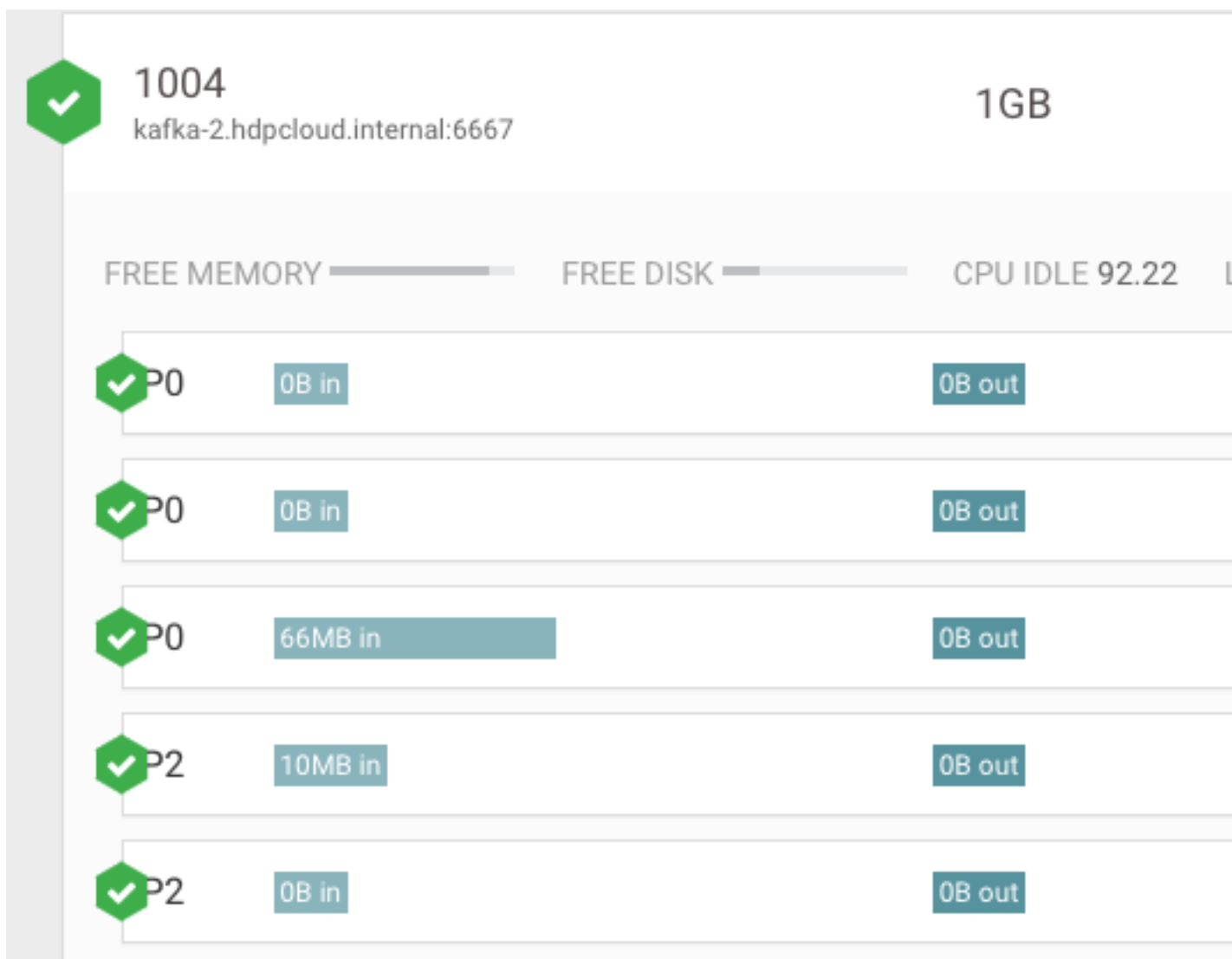
Viewing Additional Details About the Broker Host

You can view additional details about the Broker host from Ambari. To access this information:

1. From the left navigation pane, click **Brokers**.
2. Identify the Broker about which you want information. You can either scroll through the list of Brokers, or use the Search bar at the top left of the page.
3. Click the Ambari icon on the right side of the Broker view.

Monitoring Consumers

Viewing Summary Information about Consumer Groups

The Overview page gives you summary information about Consumer Groups on the right side of the page. You can use the Active, Passive, and All tabs to view Consumer Groups only in the Active or Passives, or all of the Consumer Groups. Use the Lag tab to sort consumer groups based on ascending or descending amounts of lag.

Overview

Producers	Brokers
84 ▼	5

TOPICS (28)   BROKERS (5)

Producers (84)

ACTIVE (61) PASSIVE (23)   ALL

	MESSAGES
minifi-eu-i1	8.2m
geo-critical-event-coll...	4.1m
geo-critical-event-coll...	4m
fuel-apps	3.4m
supply-chain-apps	2.3m
geo-critical-event-coll...	1.8m
geo-critical-event-coll...	1.6m

NAME   DAT

✔ syndicate-transmission   13

✔ syndicate-speed-even...   0E

✔ syndicate-speed-even...   0E

✔ syndicate-oil   16

Viewing Details about a Consumer Group

To access detailed Consumer Group information:

1. From the left navigation pane, click **Consumer Group**.
2. Identify the Consumer Group about which you want information. You can either scroll through the list of Consumer Groups, or use the Search bar at the top left of the page.
3. Click the green hexagon at the left of the Consumer Group to view details.

Viewing the Consumer Group Profile

The Consumer Group profile displays detailed information about each Consumer Group, including:

- The number of Consumers included in the group.
- The number of Consumer instances in the group.
- Details about Consumer Group lag.

To access the Consumer Group profile:

1. From the Consumer Group page, select the Consumer Group for which you want to view the profile.
2. Click the Profile icon in the upper right of the Consumer Group tile.

METRICS

Producers (3)   Partitions (3)   State: Stable

	MESSAGES
minifi-truck-w3	90k
minifi-truck-w2	0.1m
minifi-truck-w1	0.1m

✓ 1004 gatewa... P0   0B in

✓ 1005 gatewa... P1   81MB in

✓ 1001 gatewa... P2   0B in
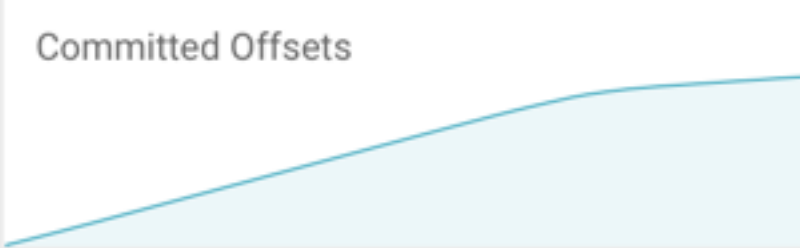
Summary

Total Lag   8

Instance

consumer-1-29fa6e77-78dd-4...

consumer-1-6b0e4ffc-6f4c-4e...

consumer-3-68359916-35f8-4...

Committed Offsets

Committed Offsets Rate