Getting started with IBM Event Streams

- Install and configure Event Streams
- Exploring the Event Streams console
- Work with a sample application

Installing IBM Event Streams

Installing Event Streams on IBM Cloud Private

Ensure you have set up your environment according to the prerequisites

The Event Streams installation process creates and runs jobs in the target namespace, and in the kube-system namespace

Plan for installation: create required persistent volumes, and ConfigMap for Kafka static configuration

You will need:

- Master host and port of your IBM Cloud Private cluster
- SSH password

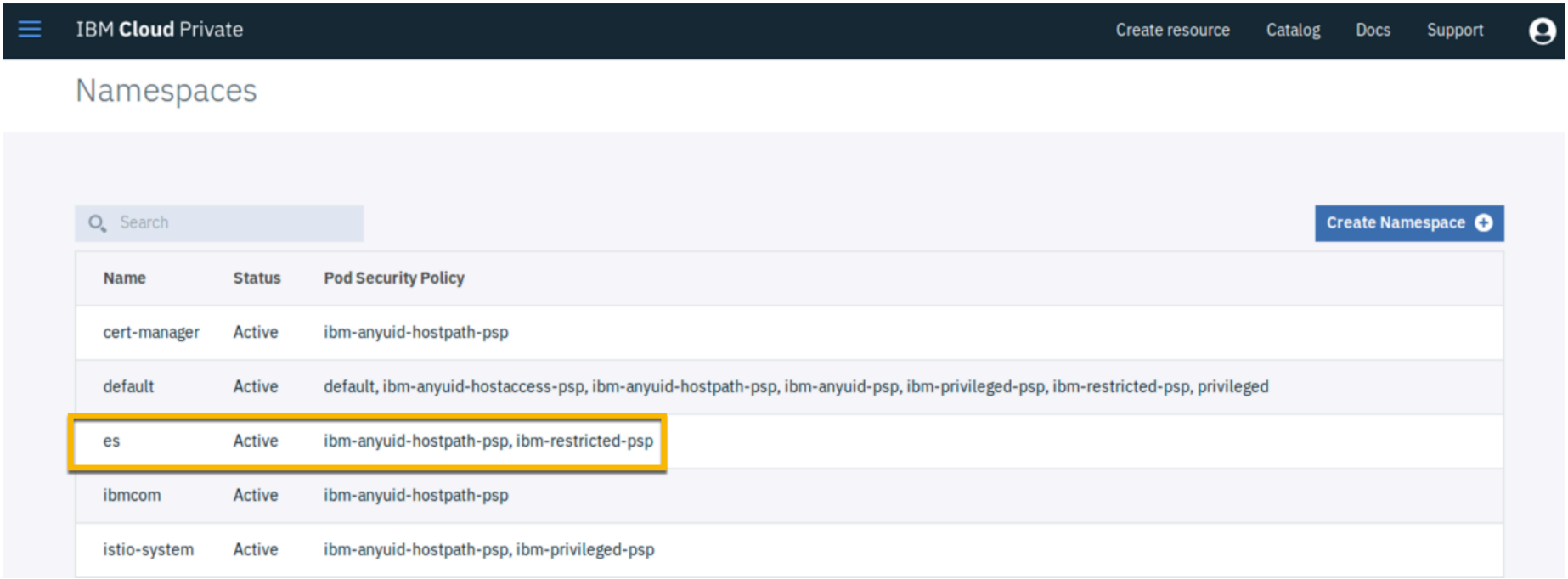
Make sure that your proxy address uses lowercase characters (otherwise, you must make the appropriate changes to your configuration)

Make sure that the IBM Cloud Private monitoring service is installed.

Installation overview

1. Create a target namespace for Event Streams
2. Download the IBM Event Streams installation image file, and make it available in your catalog
3. Create an image pull secret for the Event Streams namespace
4. Create an image policy for the internal Docker repository
5. Install the Event Streams chart
6. Verify installation

Creating a namespace



Using the IBM Cloud Private Catalog

1. Download the Event Streams archive
2. Log in to IBM Cloud Private (`cloudctl login`), and Docker (`docker login`)
3. Load the Event Streams Helm chart in to the IBM Cloud Private Catalog (`cloudctl catalog`)

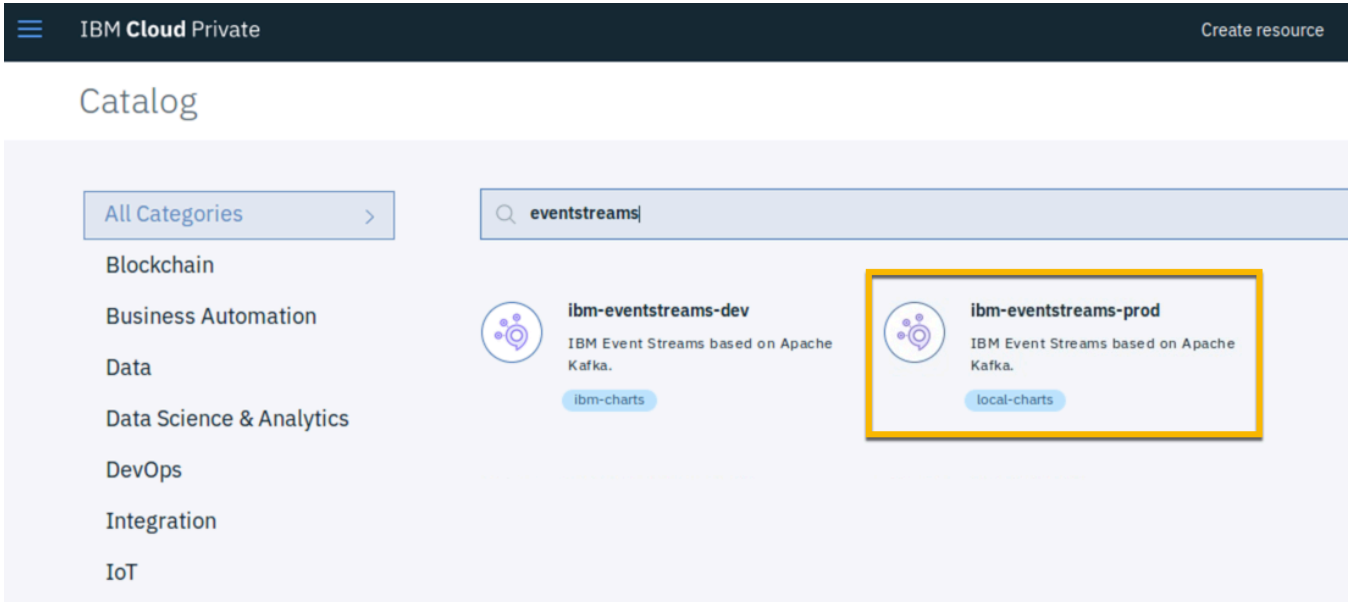


Image pull secret and image policy

Creating an image pull secret (kubectl create secret)

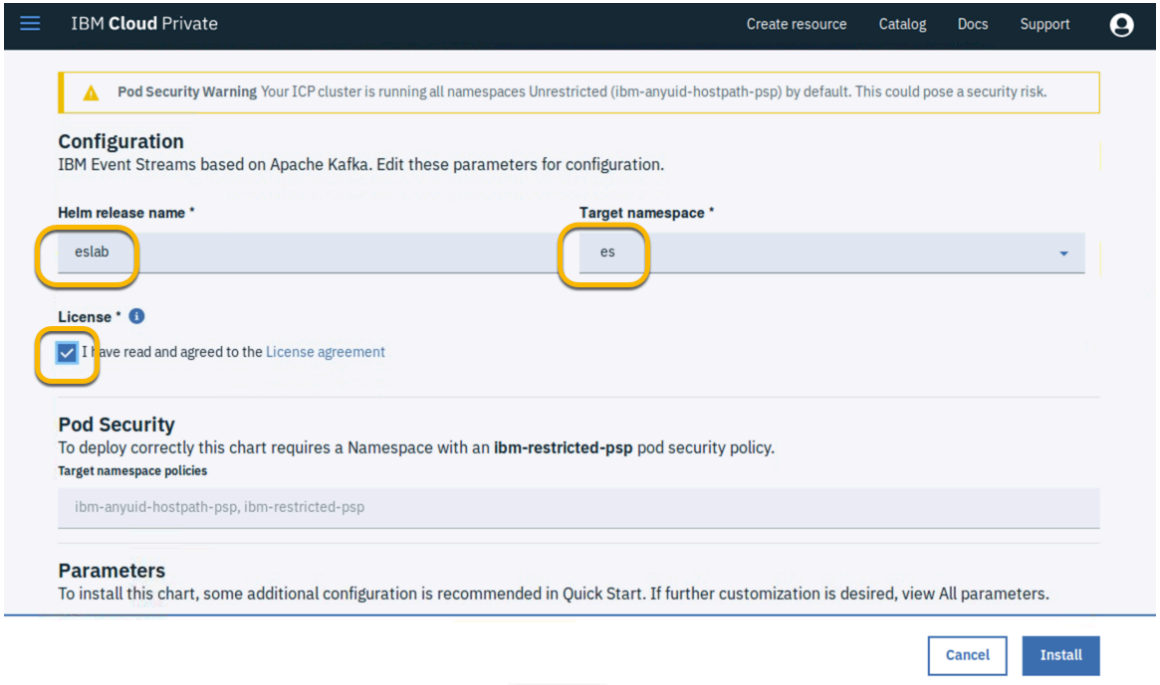
```
student@master:~/Downloads$ sudo kubectl create secret docker-registry regcred --docker-server=mycluster.icp:8500 --docker-username=admin --docker-password=admin --docker-email=mirv@us.ibm.com -n es
secret/regcred created
```

Creating an image policy

```
apiVersion: securityenforcement.admission.cloud.ibm.com/v1beta1
kind: ImagePolicy
metadata:
  name: image-policy
  namespace: es
spec:
  repositories:
  - name: docker.io/*
    policy: null
  - name: mycluster.icp:8500/*
    policy: null
```

Installing the Helm chart

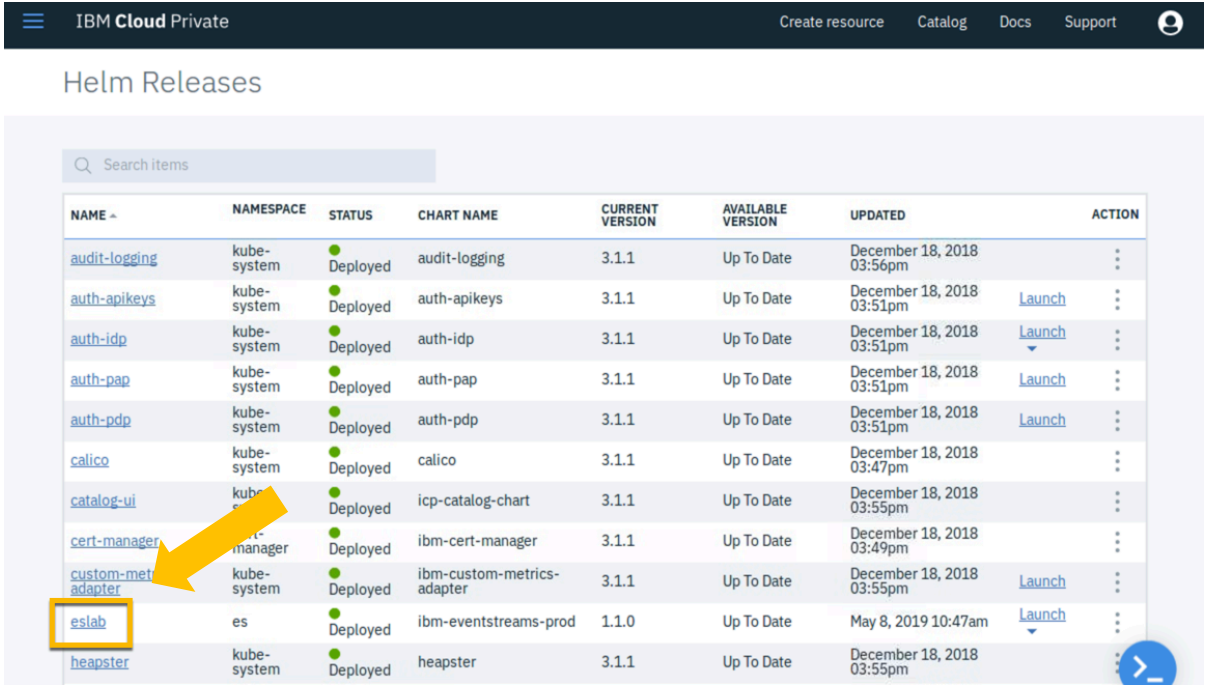
1. Sync repositories
2. Select the chart from the Catalog and click Configure
3. Enter a name and target namespace, and any other relevant information (for example, the image pull secret)
4. Click Install



Verifying the installation

In the IBM Cloud Private console, select **Workload > Helm Releases**

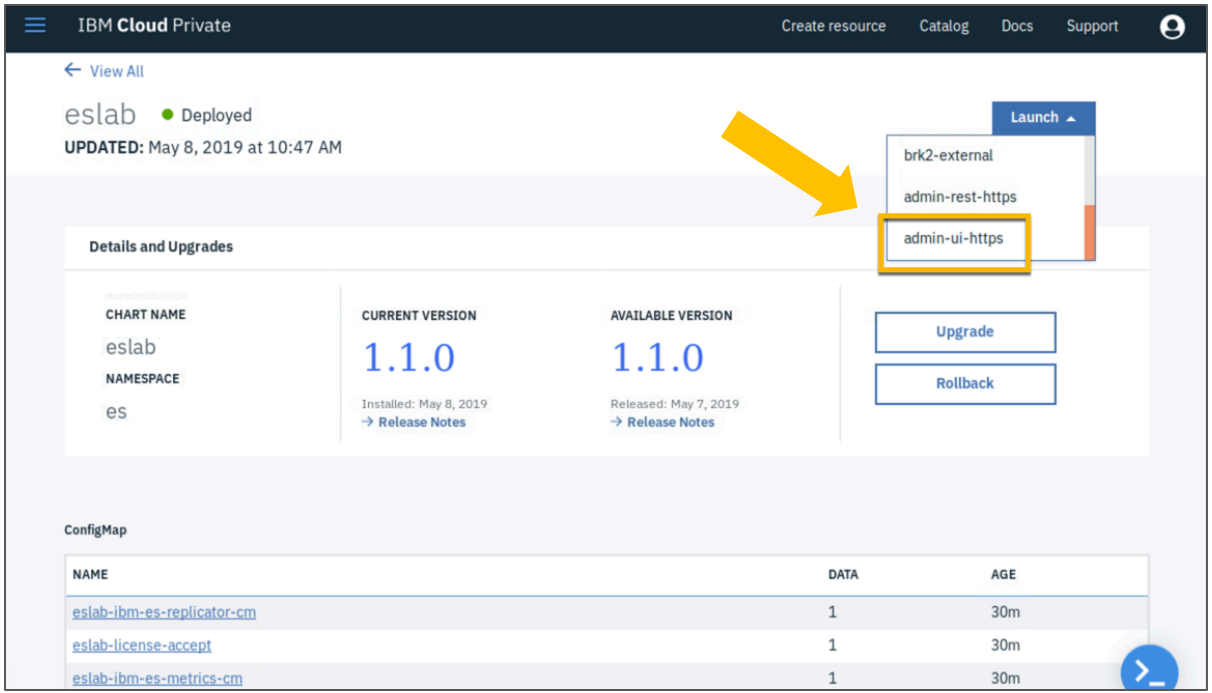
Click the release name to see more details



Exploring the Event Streams console

Accessing the Event Streams console

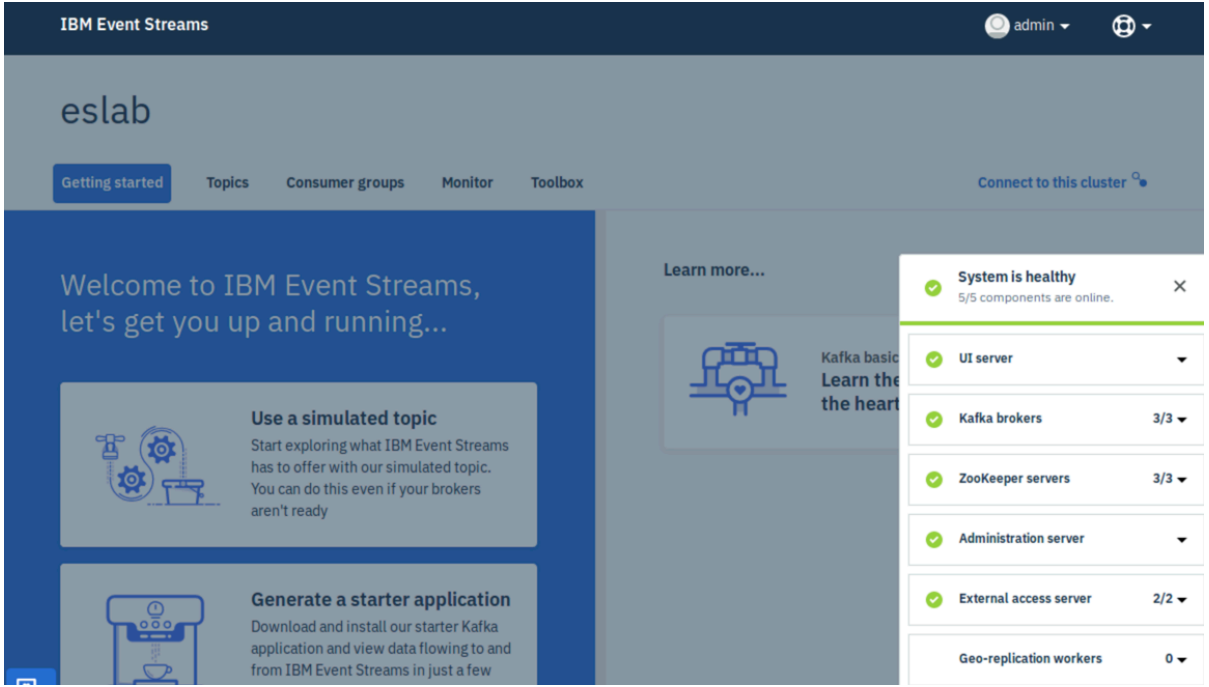
To access the Event Streams admin console,
click **Launch** in the upper right corner fo the release page, and then select **admin-ui-https**.



Welcome page

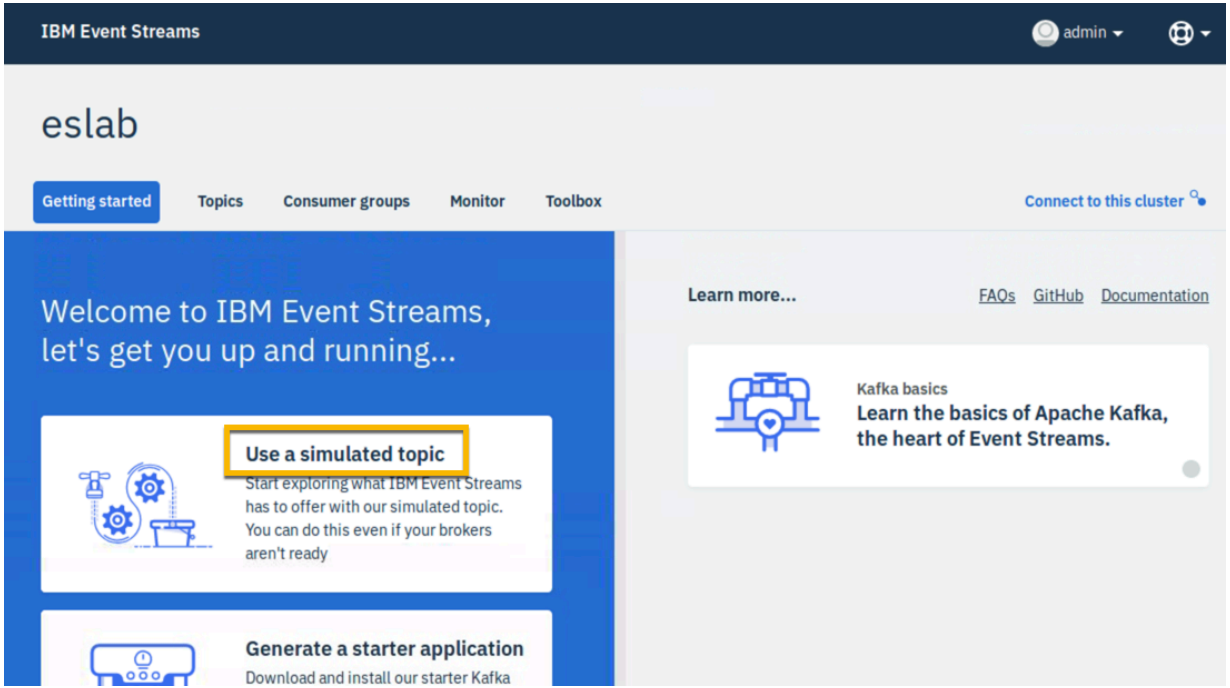
Event Streams status is displayed in the lower right corner

Click to expand the status bar



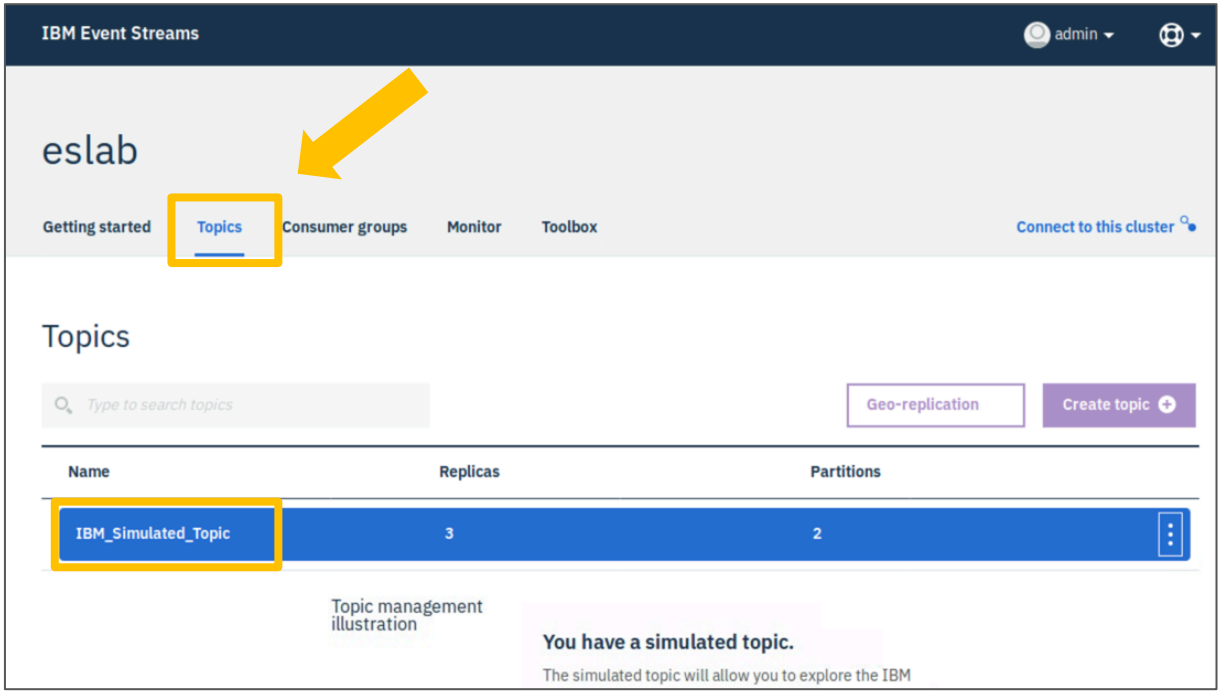
Create a simulated topic

In the Event Streams console, click **Use a simulated topic**



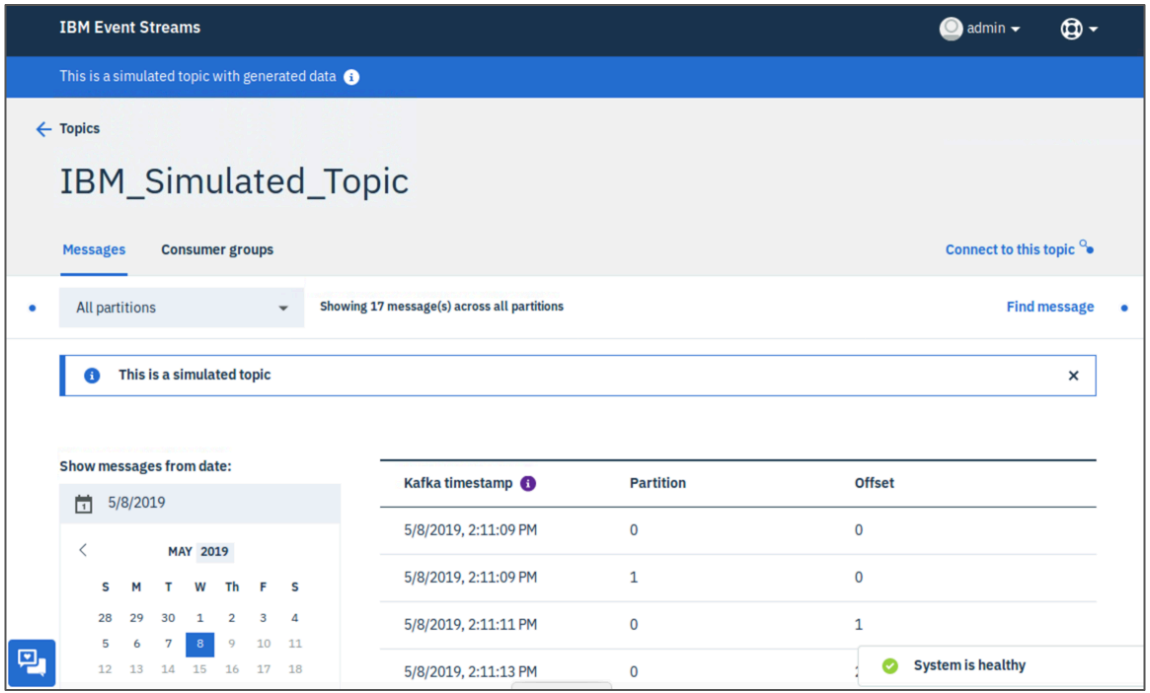
Viewing topics

Select the Topics tab



Topic details

On the Topics page, click a topic to view more details about it

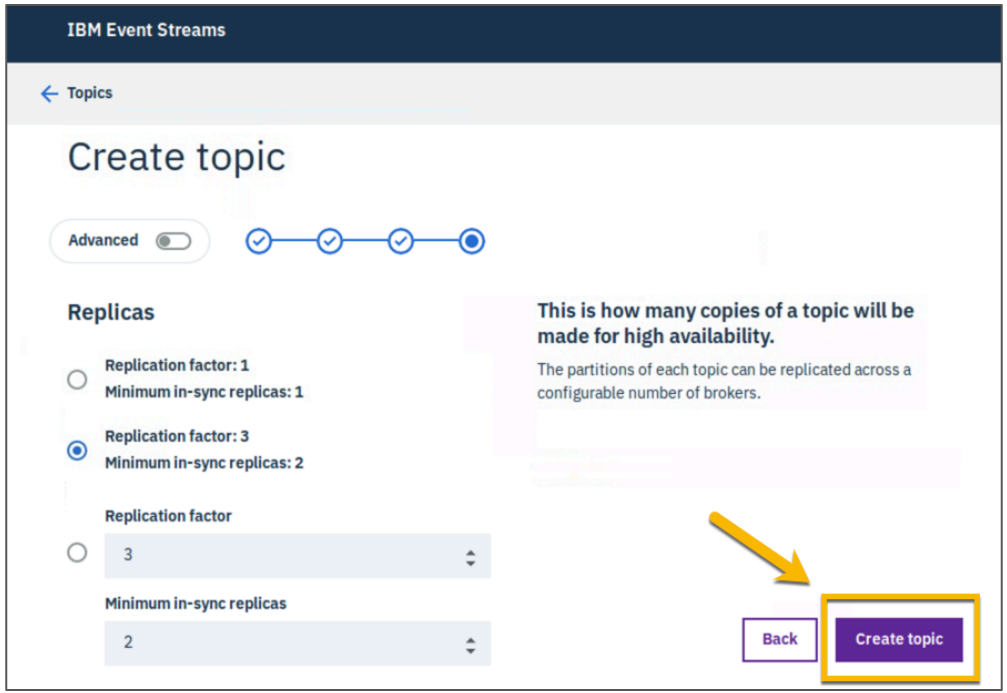


Creating a topic

On the Topics page, click **Create Topic**

Click **Advanced** to expand and review the configuration parameters that are available

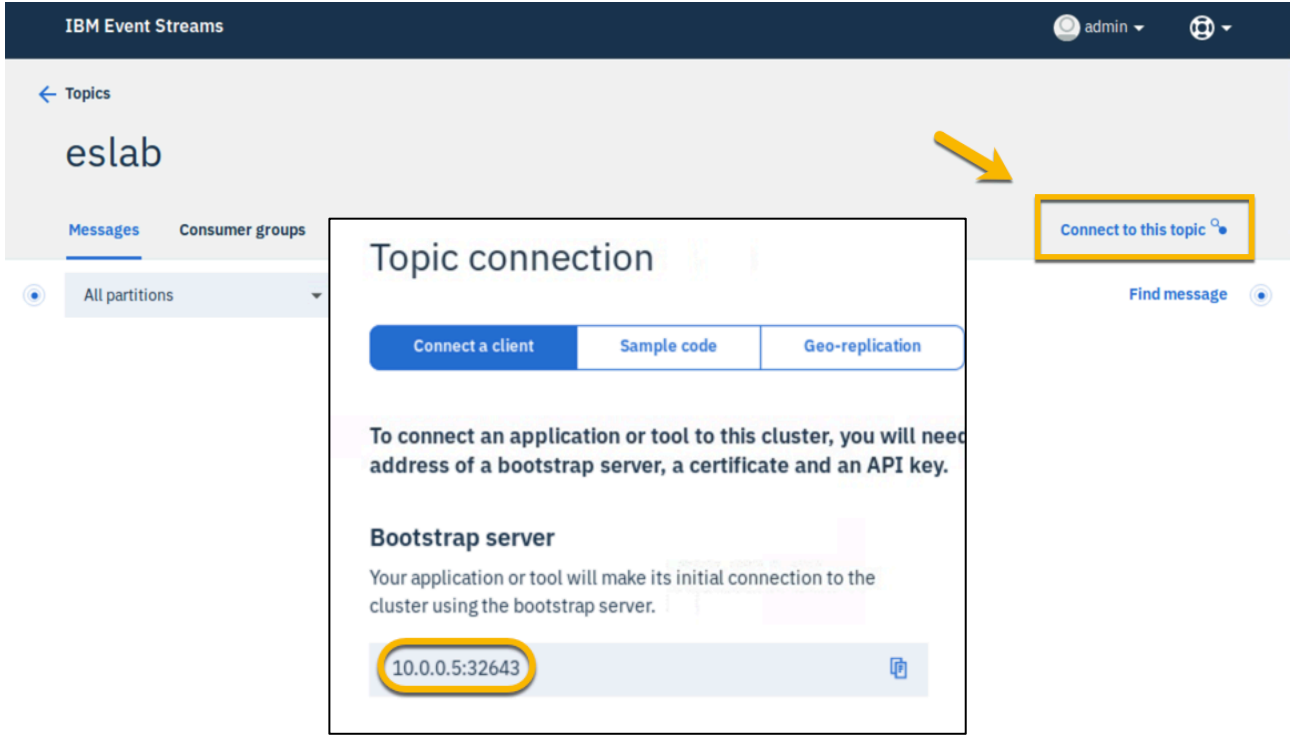
Click **Next** to proceed through the remaining options, and then click **Create Topic**



Connecting to a topic

On the topic page, click Connect to this topic

The address and port of the bootstrap server is displayed

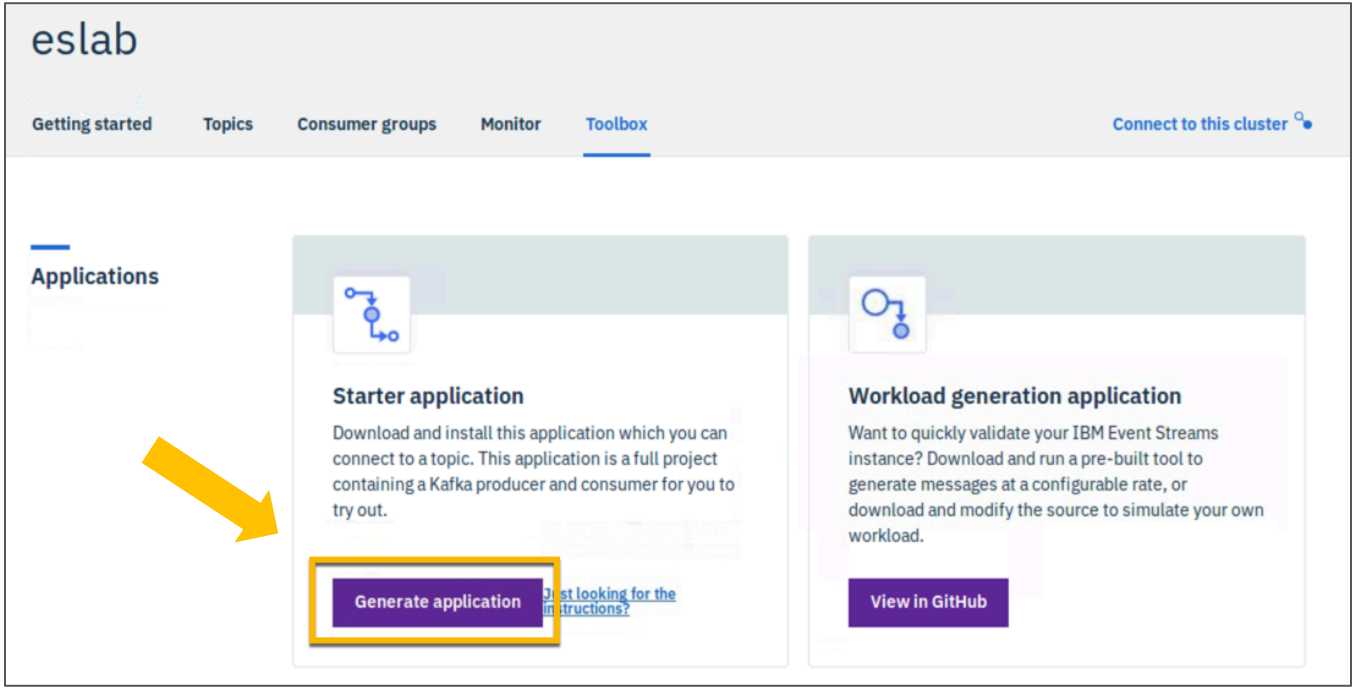


Working with the sample applications

Using the starter application

Click the **Toolbox** tab

Click **Generate application**

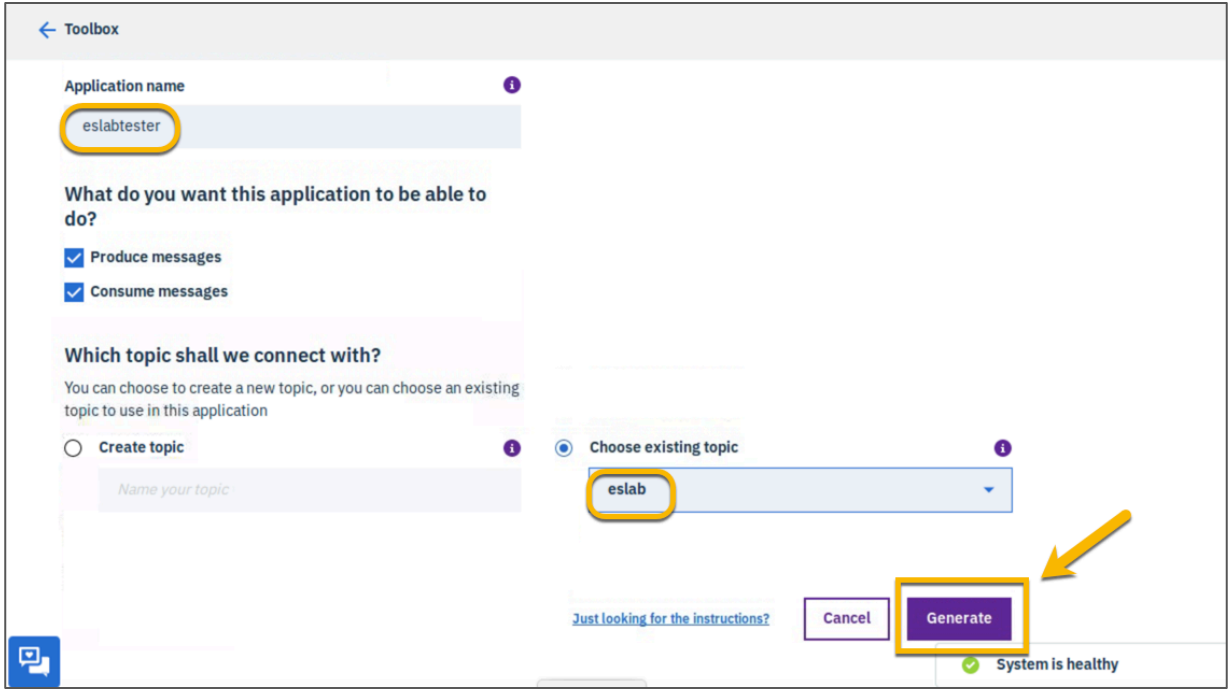


Configuring the starter application

Enter an application name, and select a topic

Select the options to produce or consume message

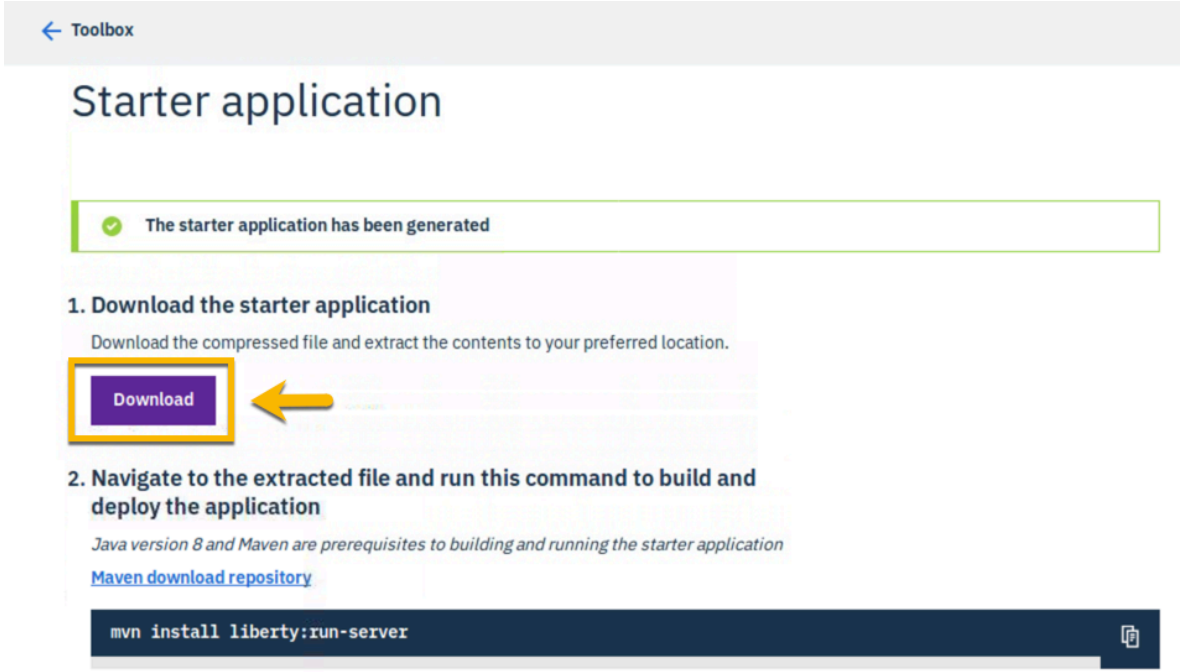
Click **Generate**



Downloading the application

After the starter application is generated, click **Download** and save the archive file

Extract and run the application (`mvn install`)

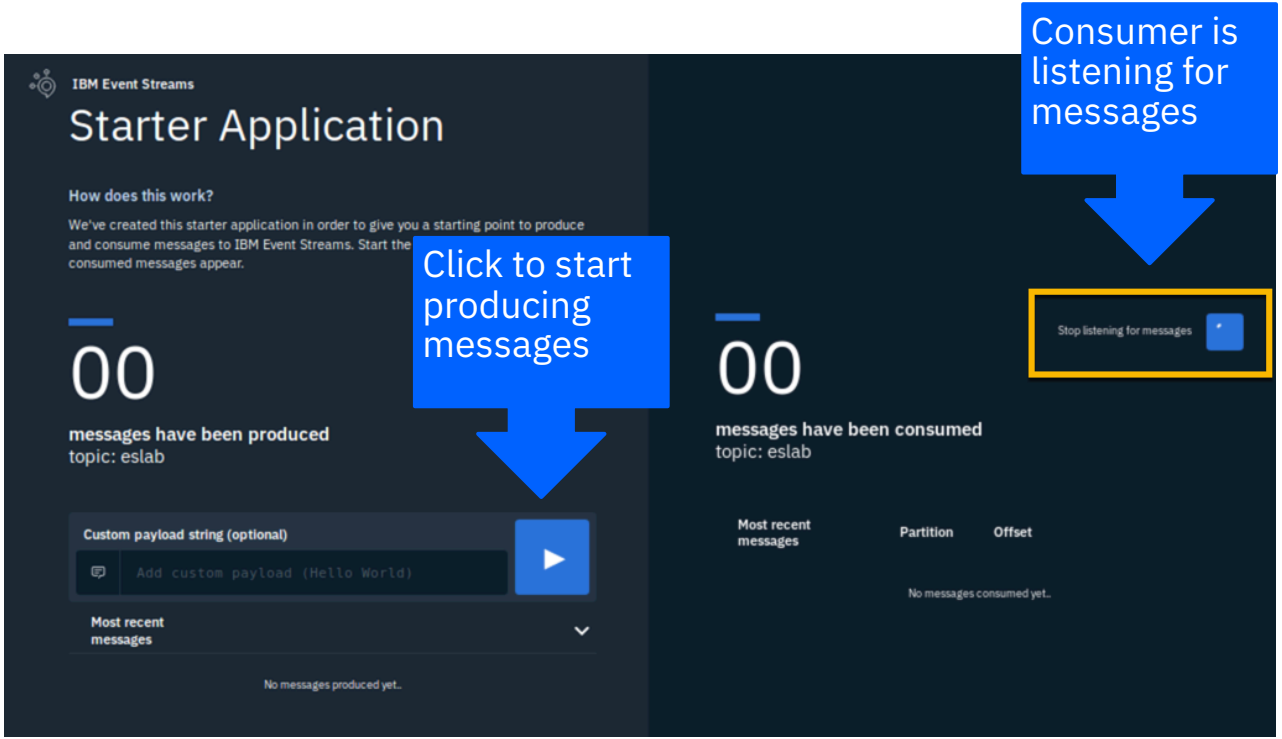


Running the application

In a browser tab, enter the following URL:

http://localhost:9080/<application_name>

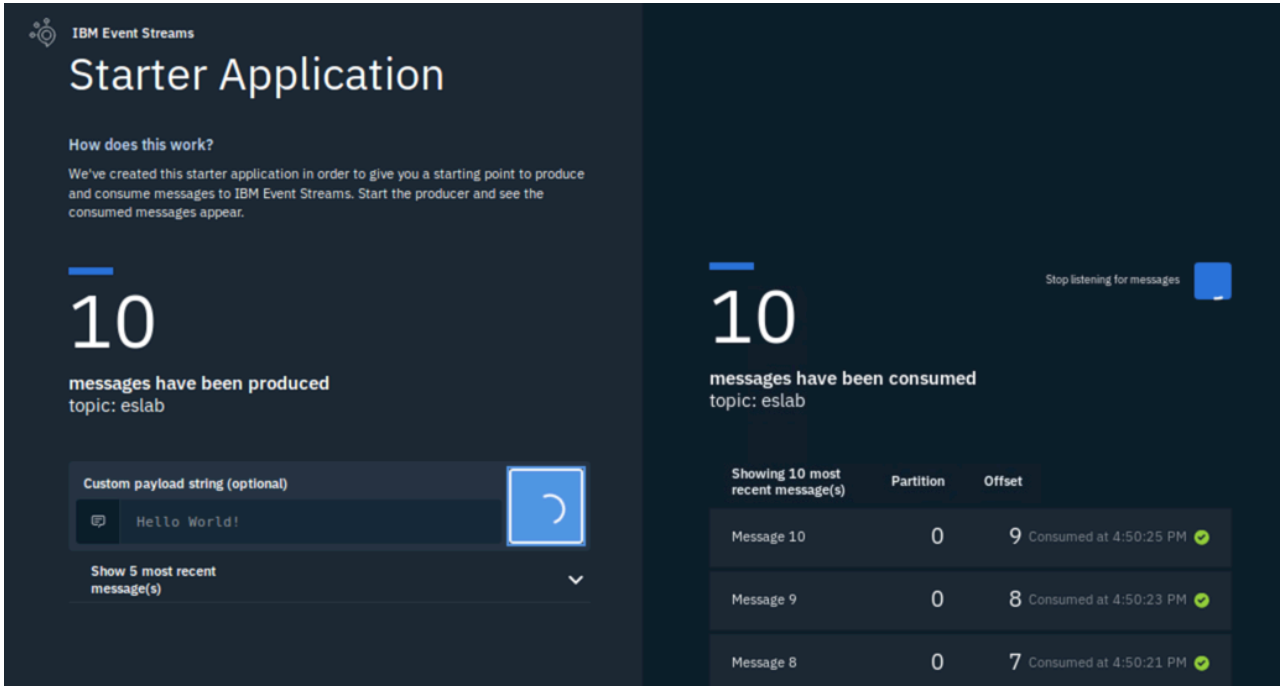
Click the arrow to start producing messages



Running the application (cont.)

The producer begins producing messages, which are sent to the Topic

On the consumer side, the number of messages increments, while the message list becomes populated

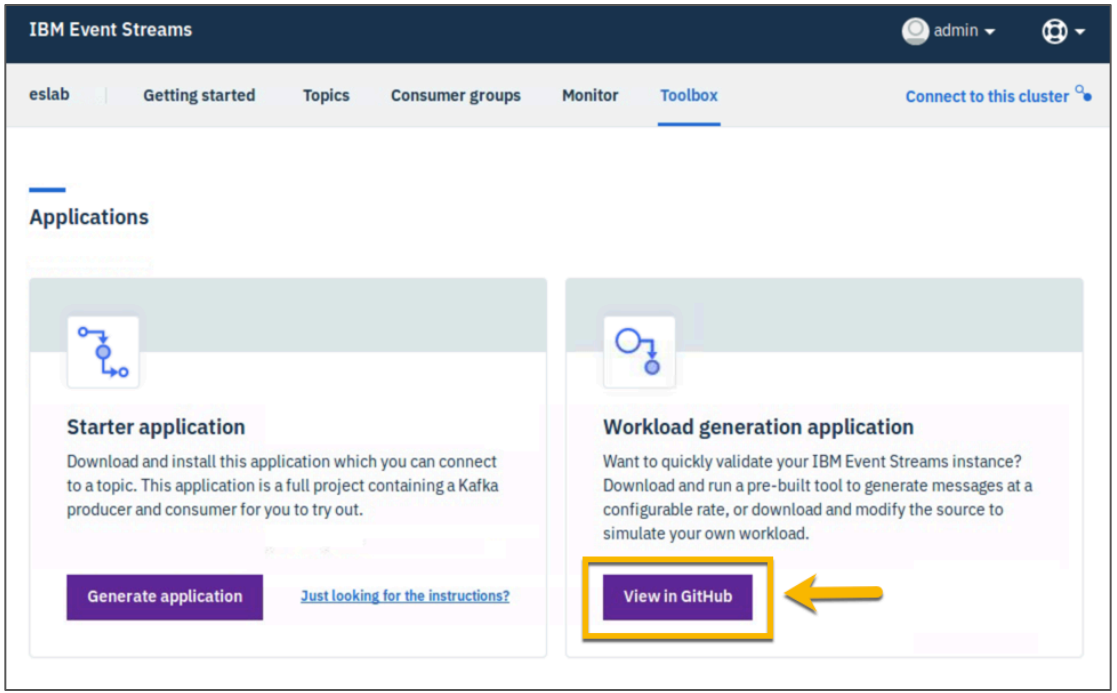


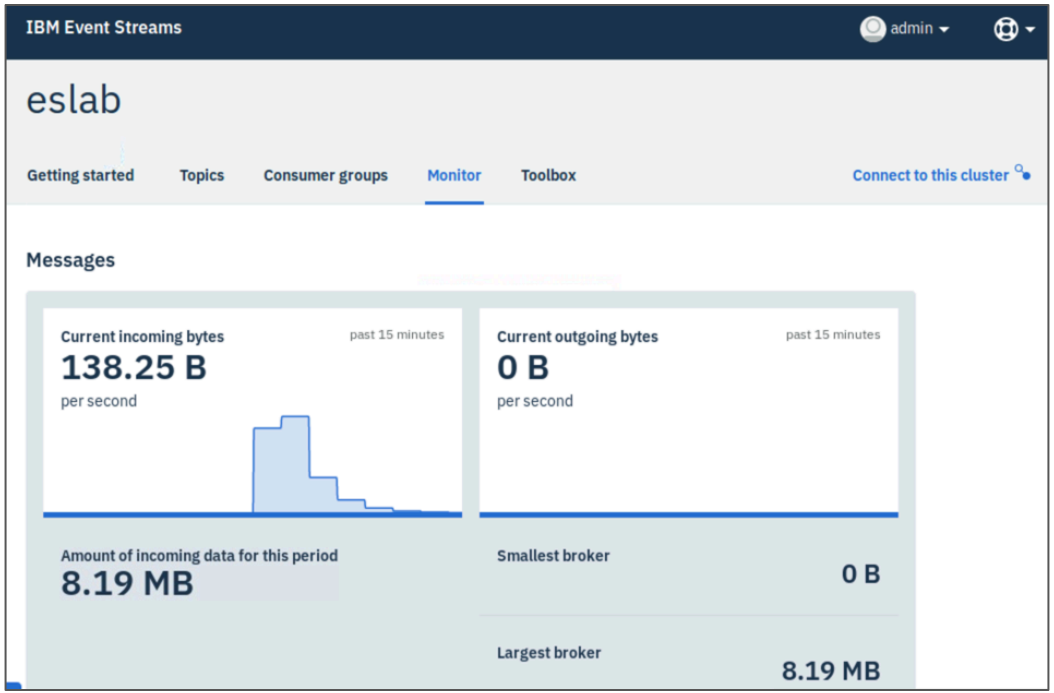
Using the workload generator

There is another sample application that you can use to generate workloads of a specific size

You can use one of the predefined load sizes, or you can specify your own settings to test throughput

You download the application from GitHub



Running an application with load

When you run the workload generator application, you can see some metrics for the load on the Monitor tab