Netsurion | EventTracker®

Integrate Heroku

EventTracker v9.3 and above

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Abstract

This guide helps you in configuring **Heroku** with EventTracker to receive **Heroku** events. In this guide, you will find the detailed procedures required for monitoring **Heroku.**

Scope

The configuration details in this guide are consistent with EventTracker version v9.3 or above and **Heroku.**

Audience

Administrators, who are assigned the task to monitor and manage **Heroku** events using **EventTracker.**

Table of Contents

1. Overview

Heroku is a container-based cloud platform as a service (PaaS) that is used to build, deploy, manage, and scale modern applications. Heroku Enterprise provides services to large companies which help them to improve collaboration among different teams. It provides a set of features like fine-grained access controls, identity federation, and private spaces to manage their enterprise application development process, resources, and users.

This guide helps you in configuring **Heroku** with EventTracker to receive **Heroku** events. Once Heroku is configured to send logs to EventTracker, EventTracker's knowledge pack will help in monitoring events from **Heroku**.

EventTracker's knowledge pack consists of dashboard (graphical representation of events), alerts (near real-time notification of important events), saved searches (for searching specific category of logs with a single click) and reports (structured and details info of events) to help you correct problems long before a disastrous failure occurs.

EventTracker's built-in knowledge pack enables you to gather business intelligence providing increased security, performance, availability, and reliability of your systems.

2. Prerequisites

- **EventTracker v9.3** or **above** should be installed.
- **Heroku** should be configured.
- Heroku Command Line Interface (CLI) must be installed.

3. Integrating Heroku with EventTracker

3.1 EventTracker uses syslog drain to receive logs from Heroku.

1. Create an app in Heroku.
2. Login to Heroku CLI.
3. Turn on debug and runtime logging.
    - **Turn on debug logging**:
        - $ heroku config:add LOG_LEVEL=DEBUG `--app <YOUR_APP_NAME>`
    - **Turn on runtime logging**:
        - $ heroku labs:enable log-runtime-metrics `--app <YOUR_APP_NAME>`
4. Restart your app to apply changes:

- **Restart your app**:
  - $ heroku restart `--app <YOUR_APP_NAME>`

5. Using command line, add syslog URL (which contains the host and port) as a syslog drain.

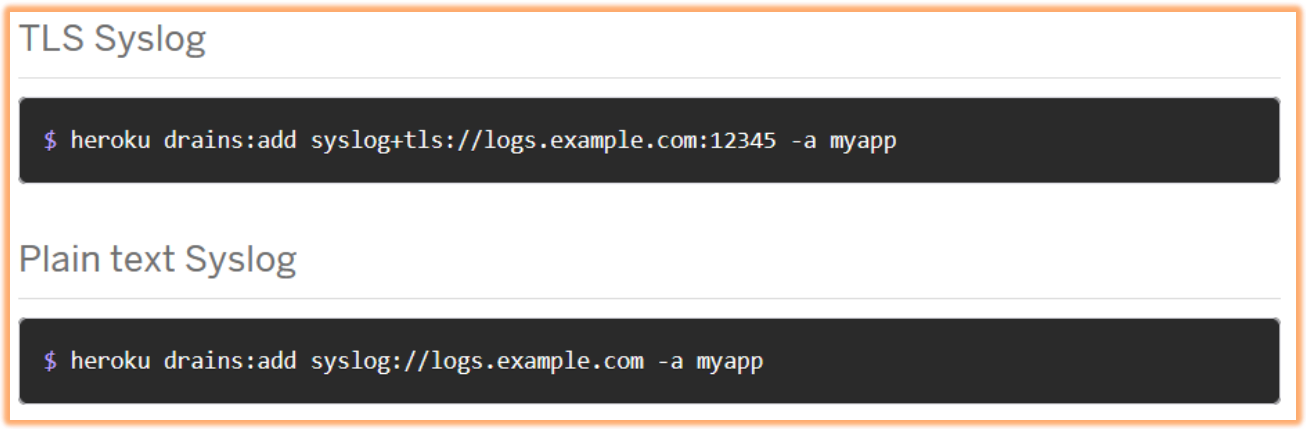

Figure 1

Here, **myapp** = the name of your Heroku application

`e.g. heroku drains:add syslog://<`**`EventTracker Manager IP`**`>:<`**`port`**`> --app <`**`YOUR APP NAME`**`>`

EventTracker will receive events/logs of applications for which syslog drain has been created.

3.2 System Licensing

1. Click on **Manager** under **Admin**.

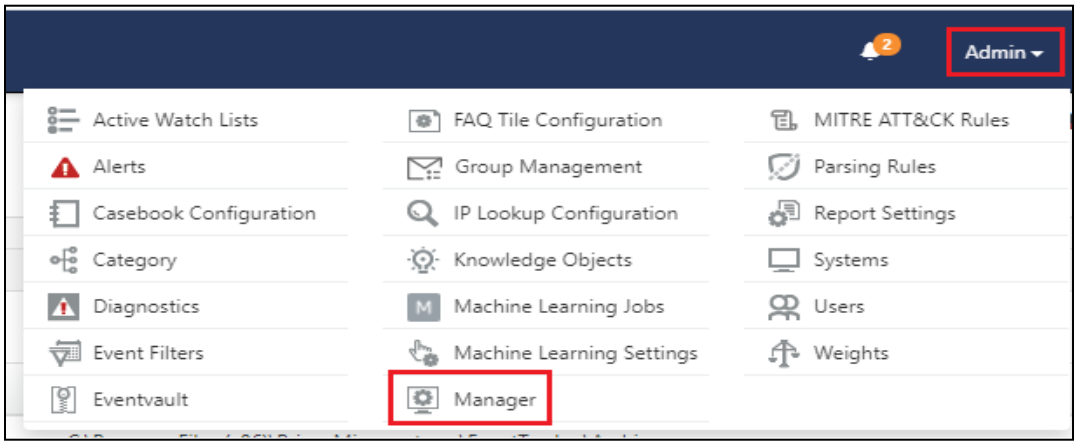

Figure 2

2. Go to **syslog/Virual Collection Point** tab.

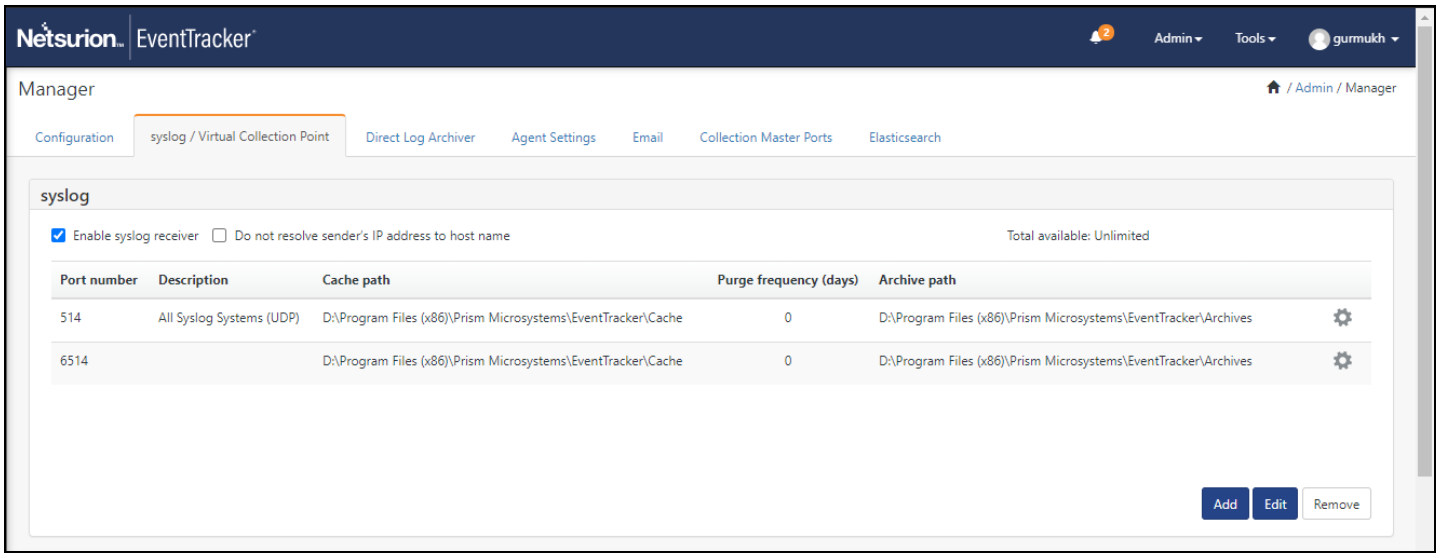

Figure 3

3. Click on the  symbol and then select **Extract device Id**.

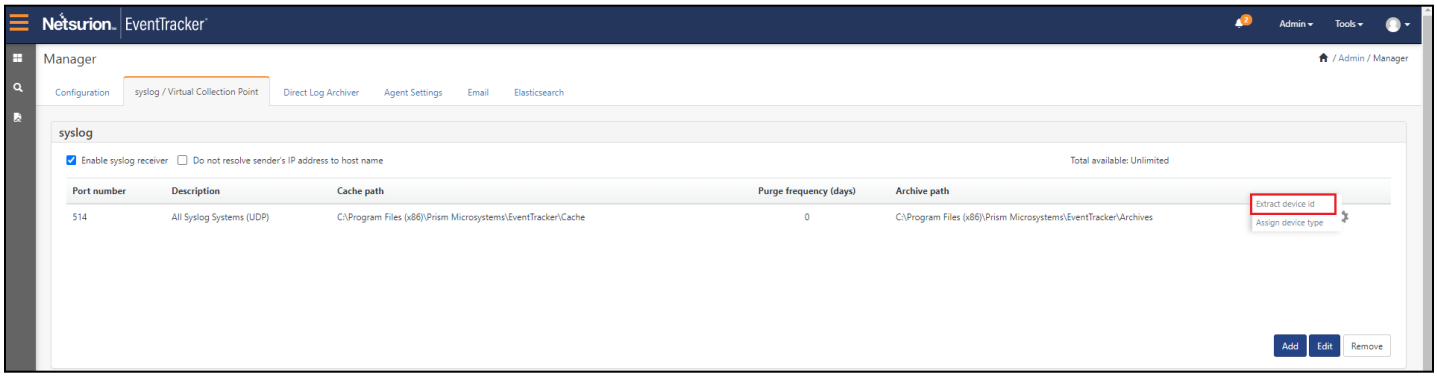

Figure 4

4. Provide below **Regex** in Regular Expression space.

   \+\d+\:\d+\s(?P<Computer>d\.[^\s]+)

5. Provide below value in Token name.

   Computer

6. Check **Active box.**

7. Click **Add** and then **close**.

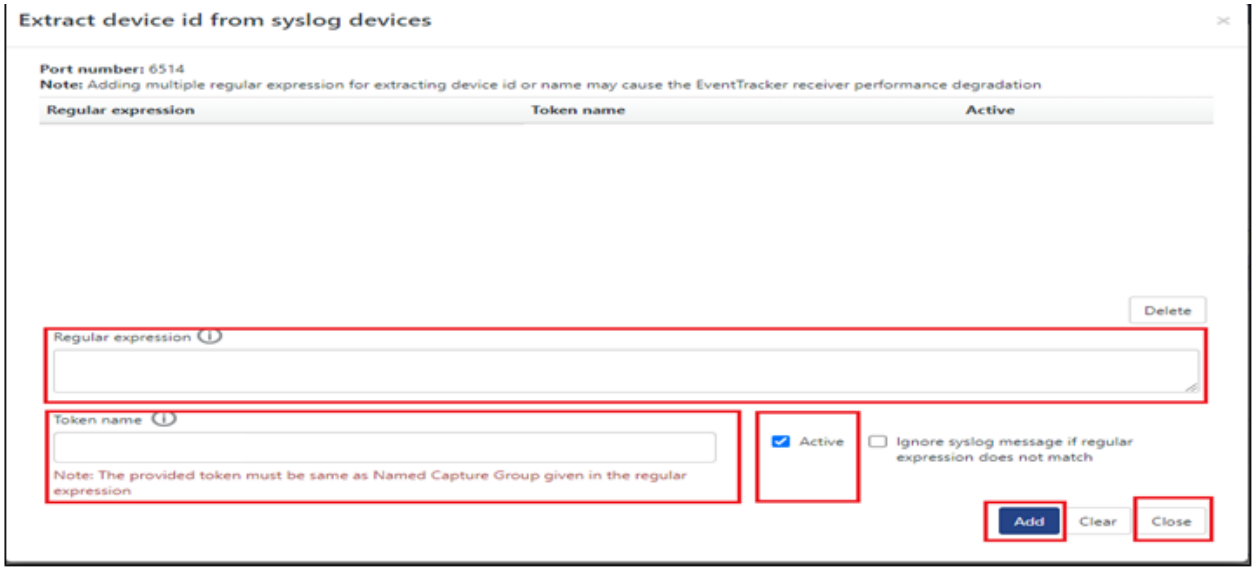

Figure 5

8. Click **Save.**

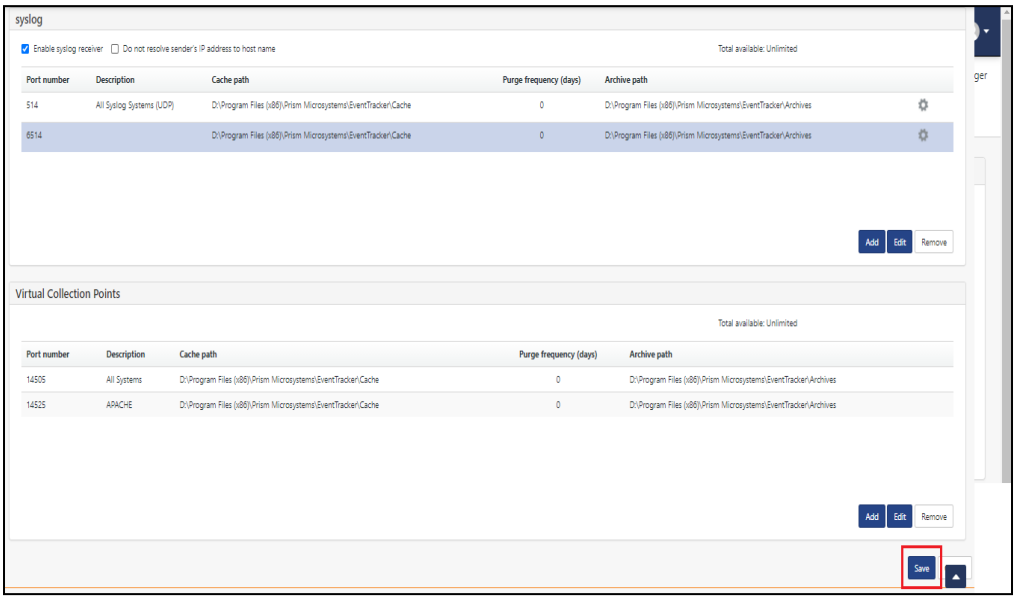

Figure 6

4. EventTracker Knowledge Pack

Once logs are received by EventTracker manager, knowledge packs can be configured into EventTracker.

The following knowledge packs are available in EventTracker to support Heroku.

4.1 Category

- **Heroku: Application Logs -** This category provides information related to logging output from the application itself including logs generated by your app's code and dependencies.
- **Heroku: Router Logs –** This category provides information related to messages about actions taken by the Heroku platform infrastructure on behalf of your app, such as: restarting a crashed process, sleeping or waking a web dyno, or serving an error page due to a problem in your app.

4.2 Alert

- **Heroku: Authentication Failure Detected in Deployed Application -** This alert is generated when any authentication failure is detected in the application deployed in Heroku.
- **Heroku: High Severity Events Detected –** This alert is generated when any high severity (error, critical, warning) events are detected in Heroku.

4.3 Report

Heroku: Resource Utilization- This report gives information about the resource utilization by an application deployed in Heroku. Drain Id is the syslog drain id associated with a specific app which tracks the application performance. Report contains CPU load and memory utilization information.

LogTime	Computer	Drain Id	Load Avg 1m	Load Avg 5m	Load Avg 15m	Disk Cache Memory	Memory Read from Disk	Page written to Disk	Resident Memory	Swap Memory	Total Memory	Source	Memory Quota
02-15-2021 03:52:06 PM	RXXXXXXXX\HEROKU-SYSLOG	d.5a8fd083-0972-4e18-b912-94dc2d099dac	0.00	0.00	0.01							web.1	
02-15-2021 03:52:06 PM	RXXXXXXXX\HEROKU-SYSLOG	d.5a8fd083-0972-4e18-b912-94dc2d099dac	0.00	0.00	0.01							web.1	
02-15-2021 03:52:06 PM	RXXXXXXXX\HEROKU-SYSLOG	d.5a8fd083-0972-4e18-b912-94dc2d099dac				15.79MB	257367pages	84526pages	669.36MB	0.00MB	685.14MB	web.1	1024.00MB

Figure 7

Heroku: Router Logs - This report gives the information about actions taken by the Heroku platform infrastructure on behalf of your app, such as: restarting a crashed process, sleeping or waking a web dyno, or serving an error page due to a problem in your app, access of application from an user. It

contains the IP from where the application has been accessed, protocol, status code, application pages/asset that has been access, connect and service time, bytes transferred.

LogTime	Computer	Log Severity	Bytes	Connection Time	Reason	Dyno	User Ip	Host	Method	Path	Request Id	Service Time	Response ID	Error code	Drain Id
02-15-2021 03:52:07 PM	RXXXXXX\HEROKU-SYSLOG	error	407	0ms	Request timeout	web.1	114.119.159.231	stg.snap-raise.com	GET	/robots.txt	44f1a6ad-36a9-490c-851d-62d09692b6d8	1464ms	200	H12	d.5a8fd083-0972-4e18-b912-94dc2d099dac
02-15-2021 03:52:10 PM	RXXXXXX\HEROKU-SYSLOG	info	407	1ms		web.1	66.249.66.94	staging.snap-raise.com	GET	/robots.txt	5b285a3e-f76d-44c9-8354-2a2cd4be251b	4ms	200		d.5a8fd083-0972-4e18-b912-94dc2d099dac
02-15-2021 03:52:10 PM	RXXXX\HEROKU-SYSLOG	info	42995	0ms		web.1	66.249.66.92	staging.snap-raise.com	GET	/	a7851a02-1e36-446e-9b4e-8c66f1c9345e	201ms	200		d.5a8fd083-0972-4e18-b912-94dc2d099dac

Figure 8

- **Heroku: Command Executed –** This report contains information about commands executed and messages about administrative actions taken developers working on app deployed in Heroku such as toggling maintenance mode, deploying new code etc.

LogTime	Computer	Command	User
02-15-2021 03:52:08 PM	RXXXXXXXX\HEROKU-SYSLOG	bundle exec rake staging:update_db_from_production	scheduler@addons.heroku.com
02-15-2021 03:52:09 PM	RXXXXXXX\HEROKU-SYSLOG	if ["$(date +%d)" = 01] \|\| ["$(date +%d)" = 15]; then heroku repo:purge_cache && heroku repo:reset; fi	scheduler@addons.heroku.com

Figure 9

Logs Considered

application_category	d.5a8fd083-0972-4e18-b912-94dc2d099dac
application_type	web.1
event_category	0
event_computer	Heroku-syslog
event_datetime	2/15/2021 3:52:19 PM
event_datetime_utc	1613384539
event_description	Feb 15 15:52:19 Heroku Computer:Heroku, Jan 24 01:51:24 52.2.229.255 1 2021-01-24T09:51:24.537546+00:00 d.5a8fd083-0972-4e18-b912-94dc2d099dac heroku web.1 - - source=web.1 dyno=heroku.85170982.7541d2e4-778f-442e-88f6-ad72cd81b0ff sample#memory_total=639.80MB sample#memory_rss=626.77MB sample#memory_cache=13.03MB sample#memory_swap=0.00MB sample#memory_pgpgin=236487pages sample#memory_pgpgout=73720pages sample#memory_quota=1024.00MB
event_id	128
event_log_type	Application
event_source	SYSLOG local0
event_type	Error
event_user_domain	N/A
event_user_name	N/A
log_category	heroku
log_info	heroku.85170982.7541d2e4-778f-442e-88f6-ad72cd81b0ff
log_source	Heroku
log_type	web.1
source_type	Heroku
total_bytes_in	236487
total_bytes_out	73720
total_packets_count	1024
total_packets_in	627

Figure 10

4.4 Dashboards

- **Heroku: Application Visited by Geolocation**

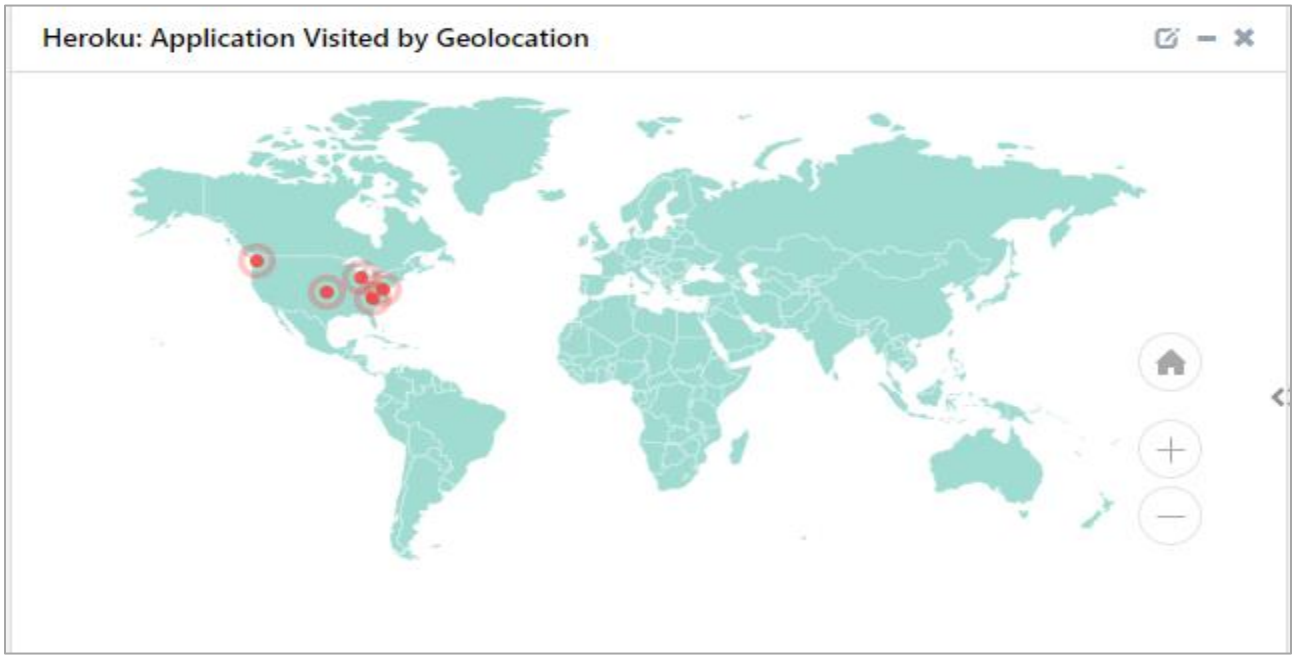

Figure 11

- **Heroku: HTTP Code by Volume**

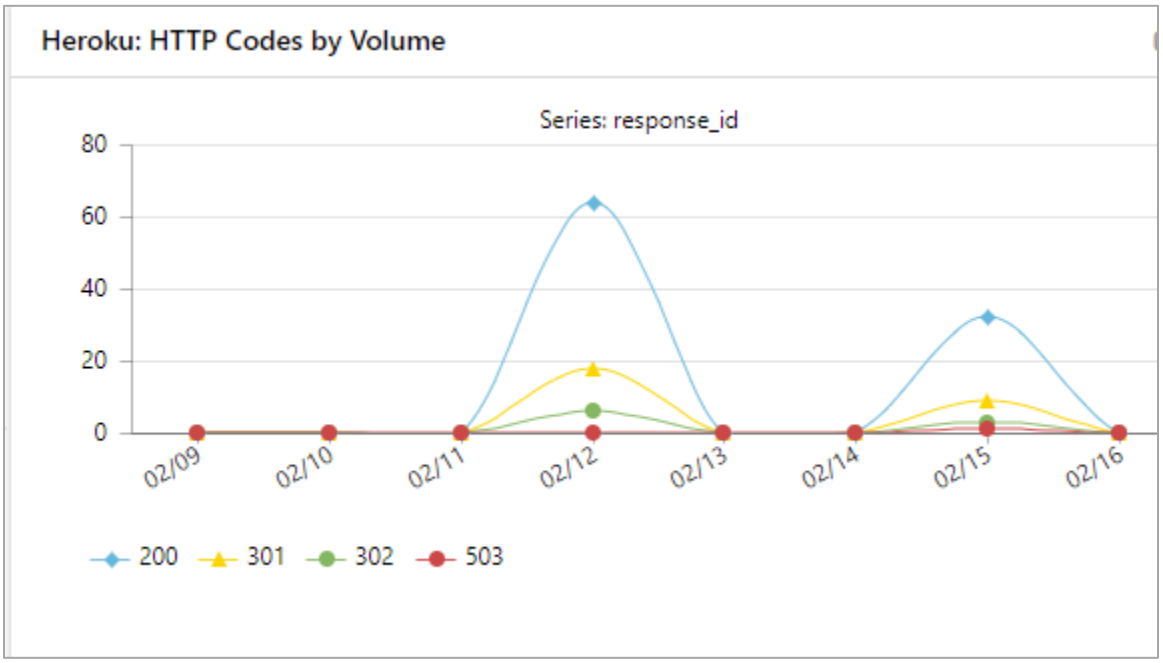

Figure 12

- **Heroku: Error Codes Received**

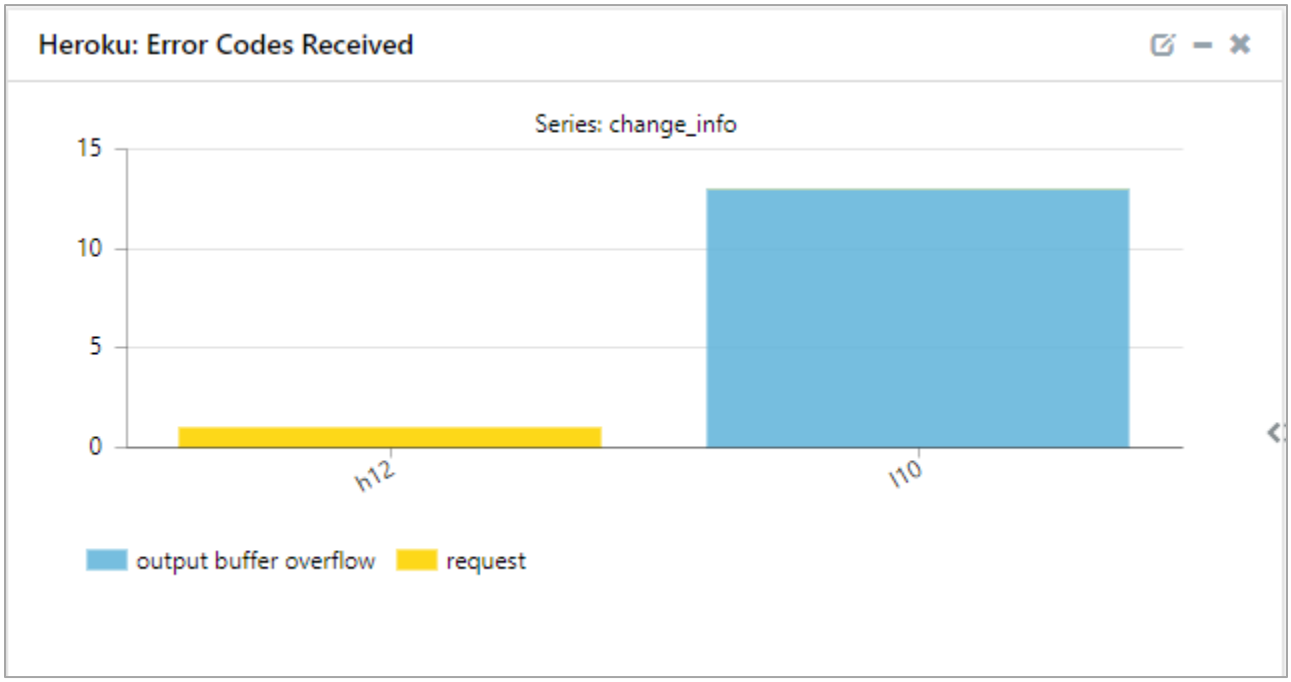

Figure 13

- **Heroku: Log Type by Application (syslog drain id)**

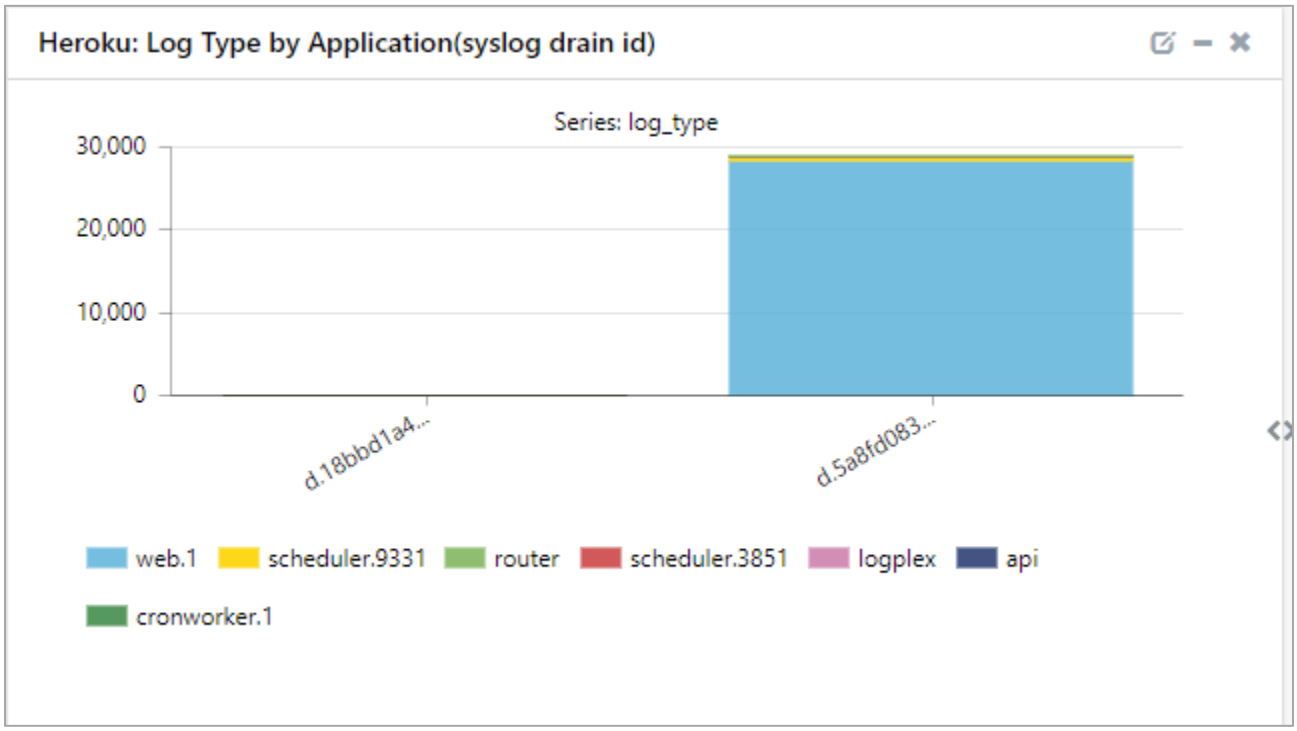

Figure 14

- **Heroku: Request Method by Ip**

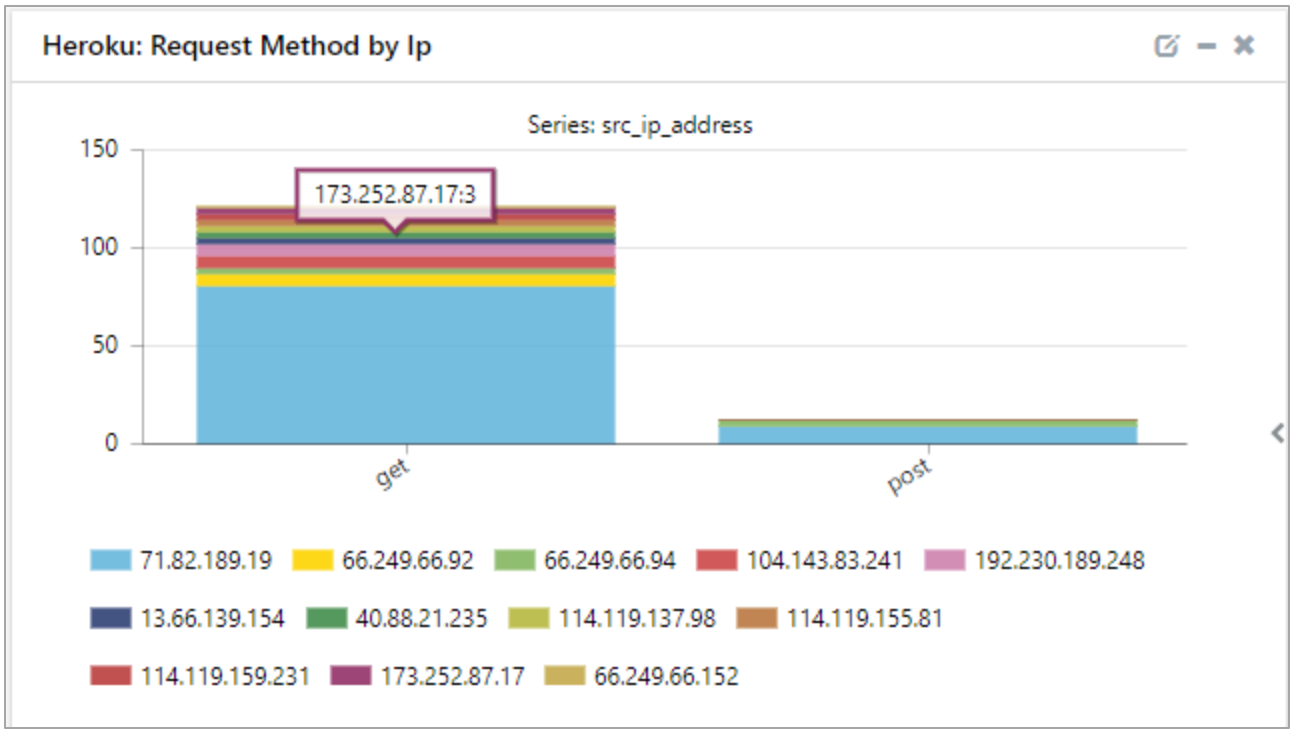

Figure 15

- **Heroku: Visits on Application Per Day**

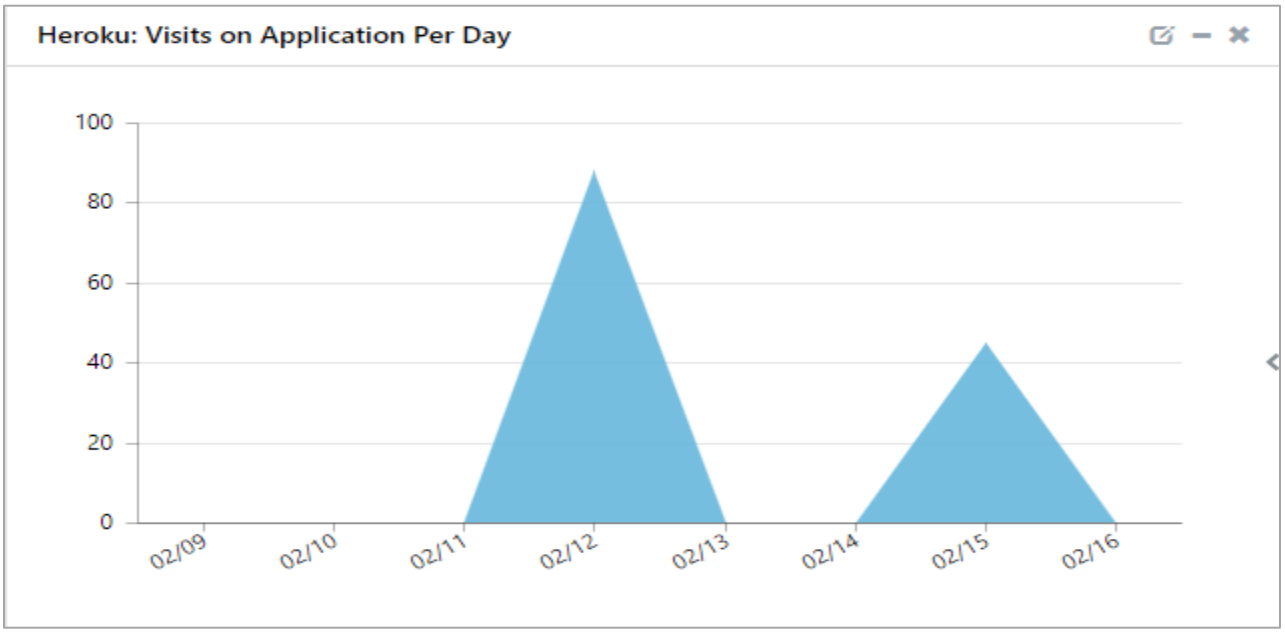

Figure 16

- **Heroku: Log Severity**

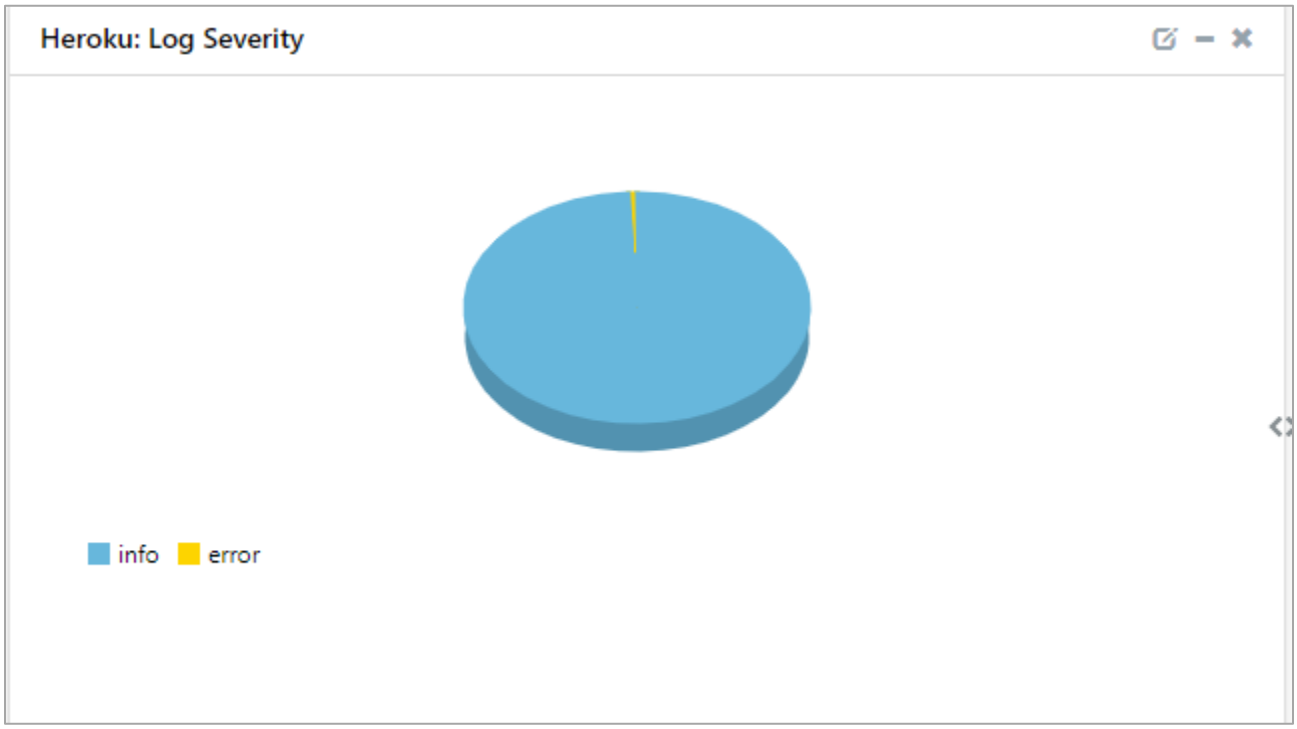

Figure 17

5. Importing Heroku knowledge pack into EventTracker

NOTE: Import knowledge pack items in the following sequence:

- Category
- Alert
- Knowledge Object
- Report
- Dashboard

1. Launch **EventTracker Control Panel**.
2. Double click **Export Import Utility**.

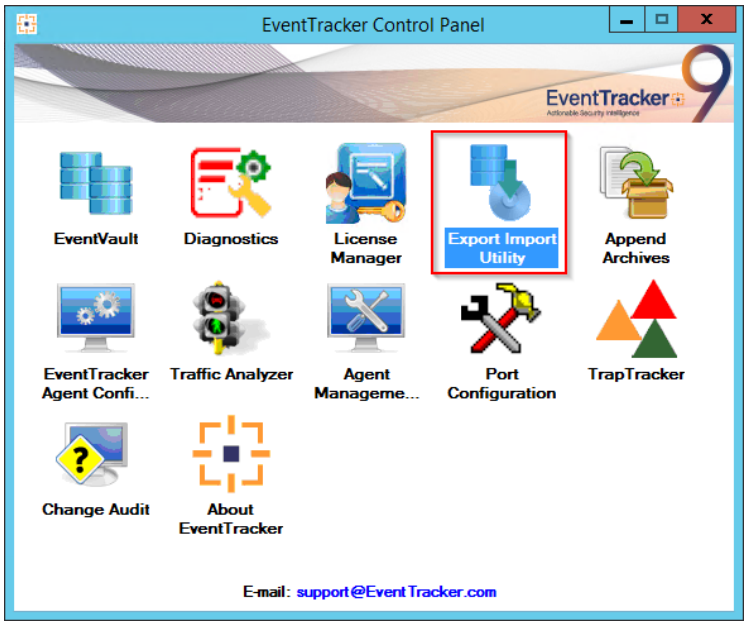

Figure 18

3. Click the **Import** tab.

5.1 Category

1. Click **Category** option, and then click the **Browse** ... button.

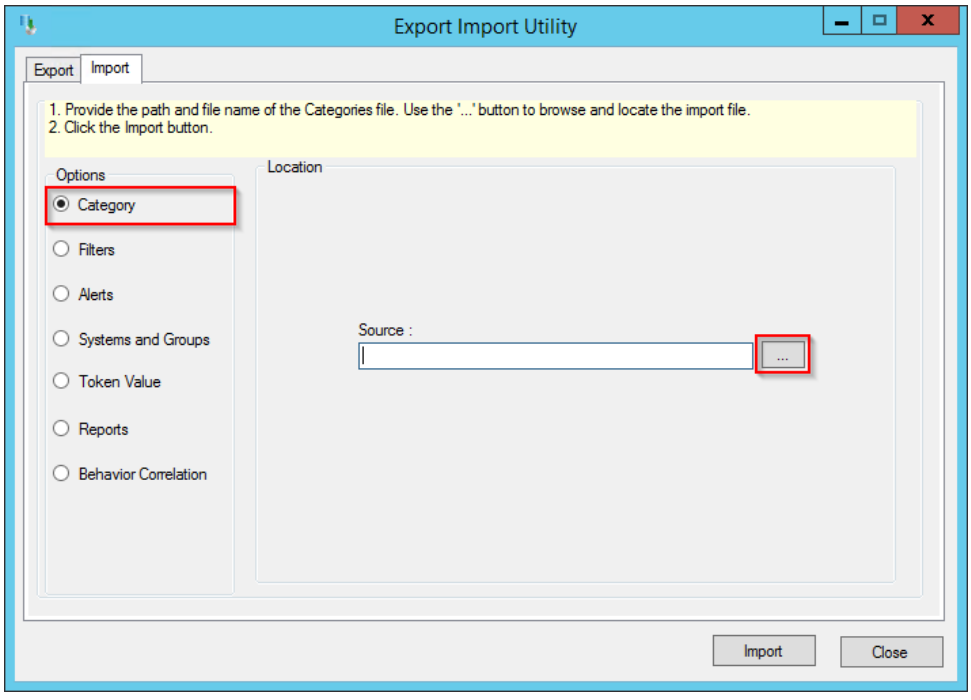

Figure 19

2. Locate **Category_Heroku.iscat** file, and then click the **Open** button.
3. To import categories, click the **Import** button.

EventTracker displays success message.

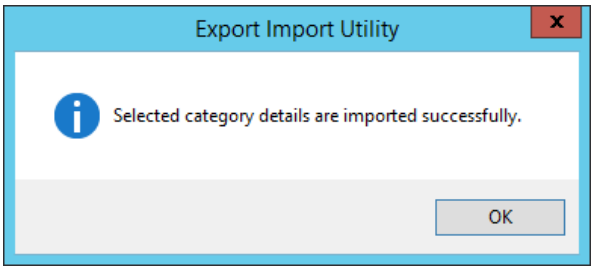

Figure 20

4. Click **OK,** and then click the **Close** button.

5.2 Alert

1. Click **Alert** option, and then click the **Browse** ... button.

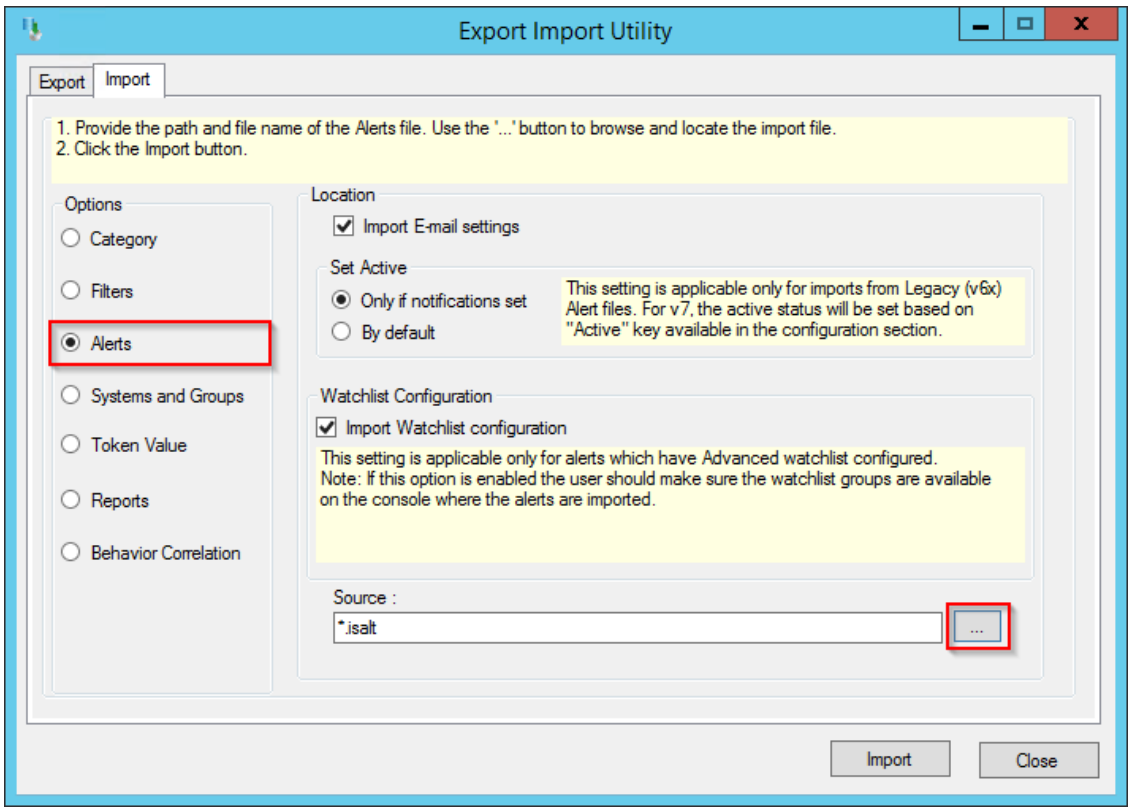

Figure 21

2. Locate **Alert_Heroku.isalt** file, and then click the **Open** button.
3. To import alerts, click the **Import** button.
   EventTracker displays success message.

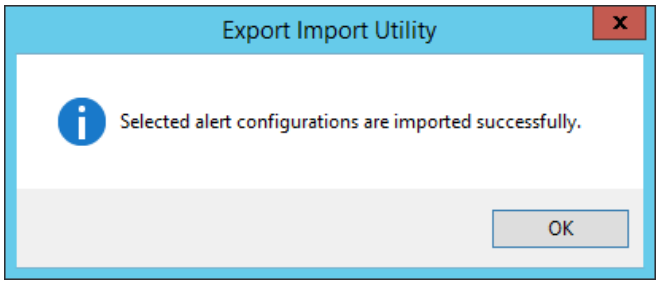

Figure 22

4. Click the **OK** button, and then click the **Close** button.

5.3 Knowledge Object

1. Click **Knowledge objects** under **Admin** option in the EventTracker manager page.

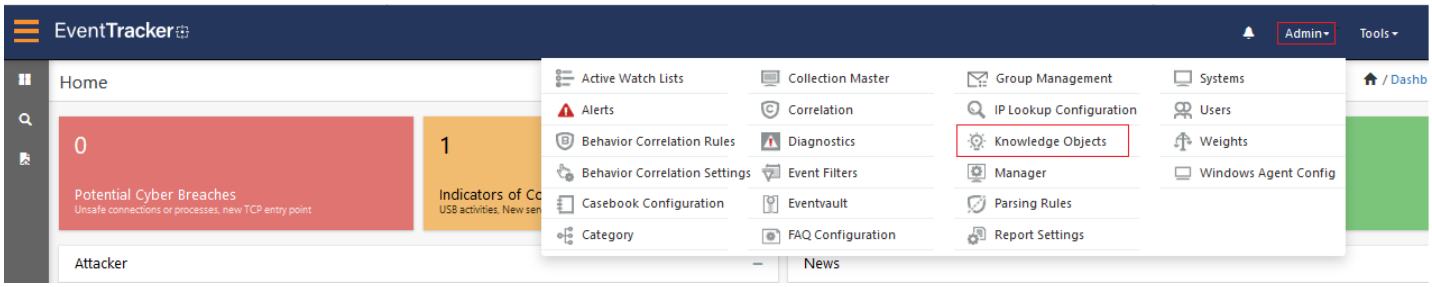

Figure 23

2. Click on **Import** button as highlighted in the below image:

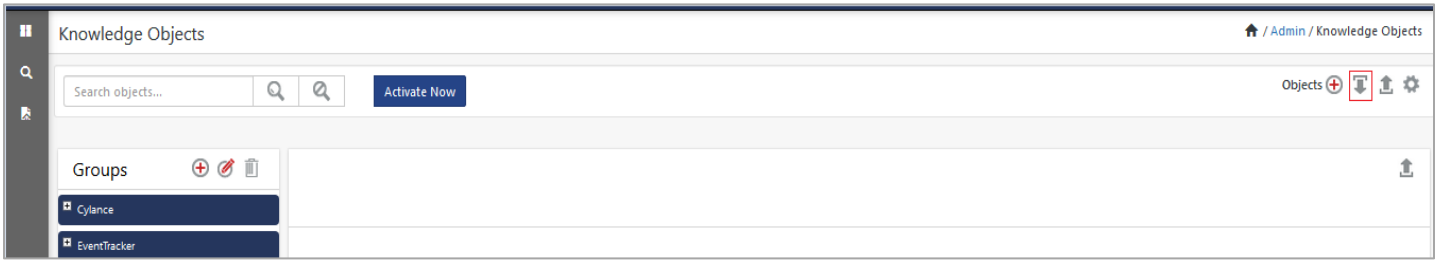

Figure 24

3. Click on **Browse**.

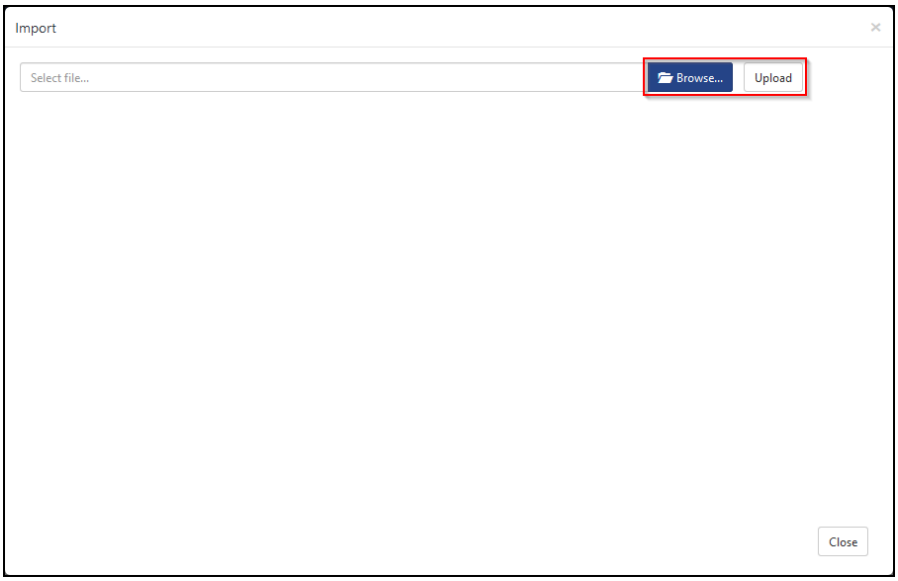

Figure 25

4. Locate the file named **KO_Heroku.etko**.
5. Select the check box and then click on **Import** option.

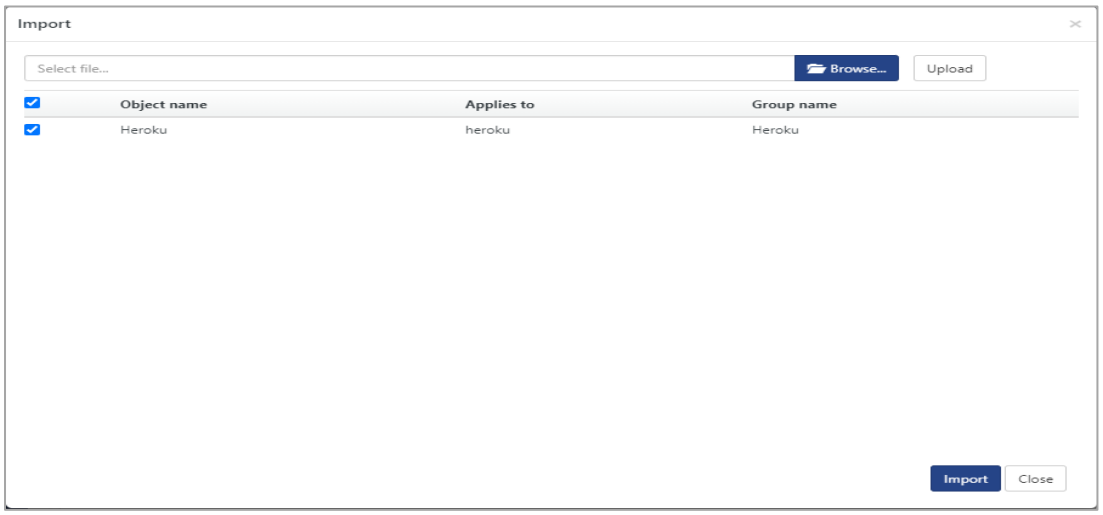

Figure 26

6. Knowledge objects are now imported successfully.

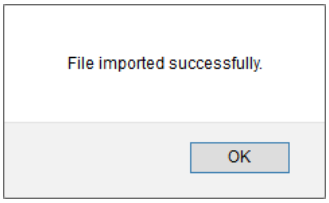

Figure 27

5.4 Report

1. Click **Reports** option and select **New (*.etcrx)** option.

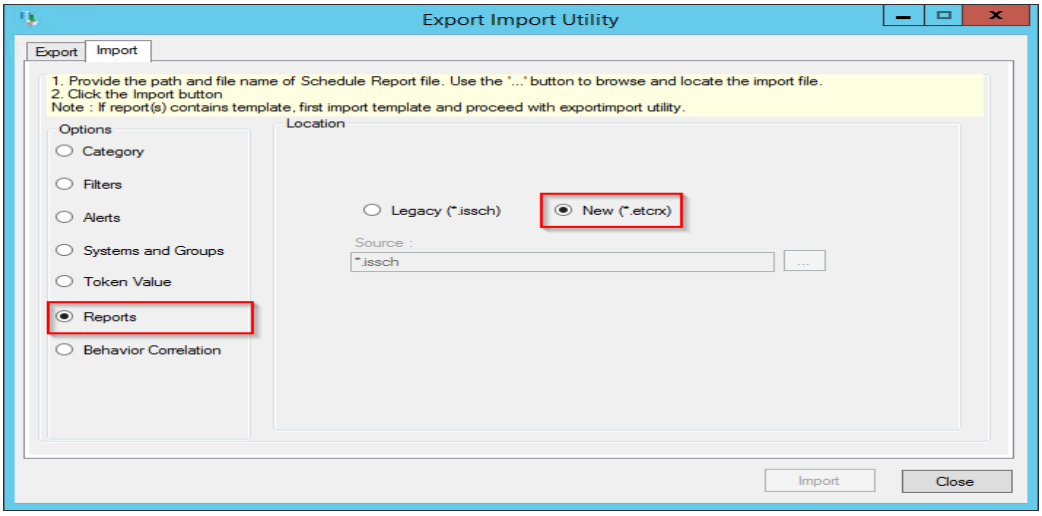

Figure 28

2. Locate the file named **Reports_ Heroku.etcrx** and select the check box.

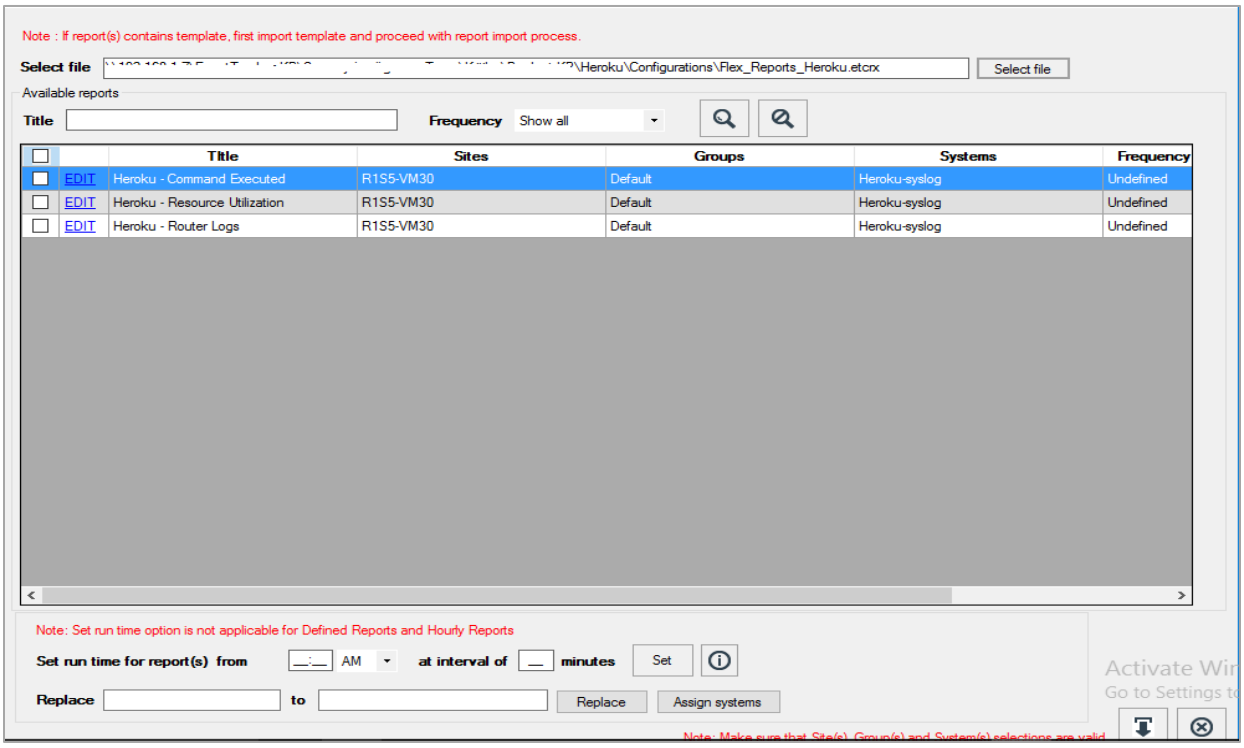

Figure 29

3. Click the **Import** button to import the report. EventTracker displays success message.

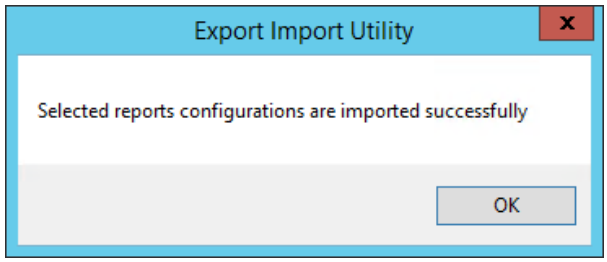

Figure 30

5.5 Dashboards

NOTE- Below steps given are specific to EventTracker 9 and later.

1. Open **EventTracker** in browser and logon.

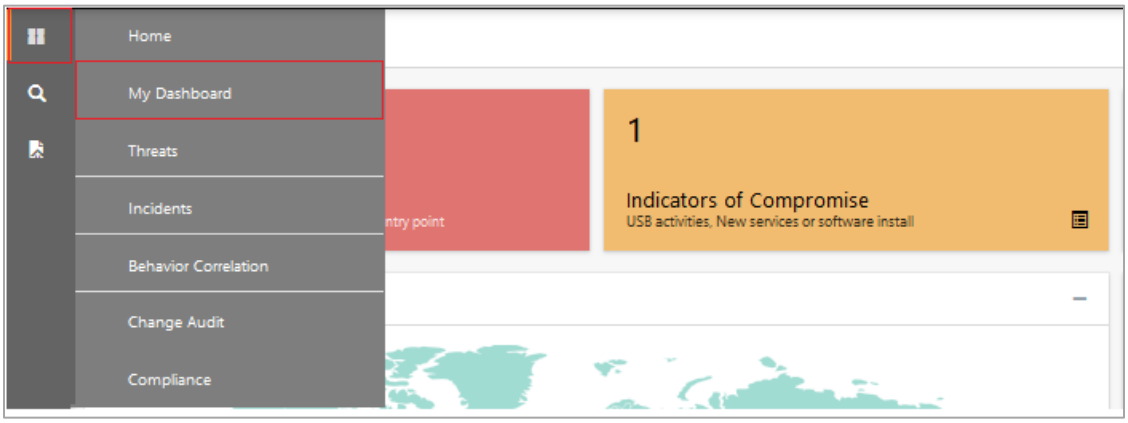

Figure 31

2. Navigate to **My Dashboard** option as shown above.
3. Click on the **Import** button as show below:

Figure 32

4. Import dashboard file **Dashboard_Heroku.etwd** and select **Select All** checkbox**.**
5. Click on **Import** as shown below:

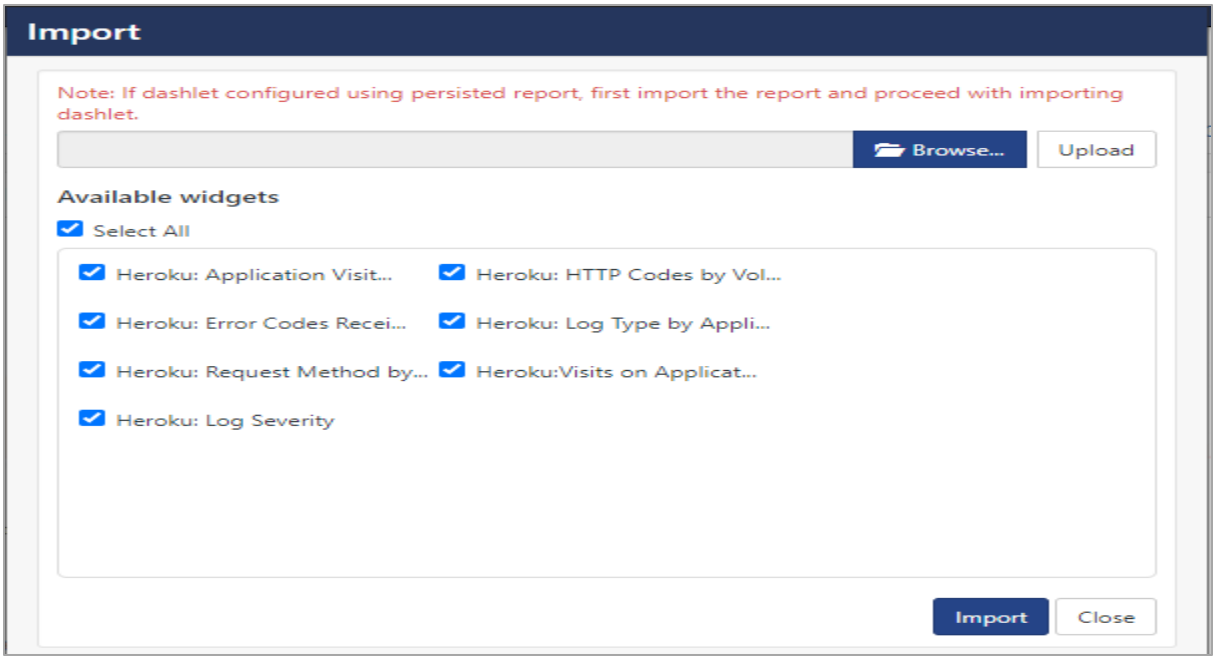

Figure 33

6. Import is now completed successfully.

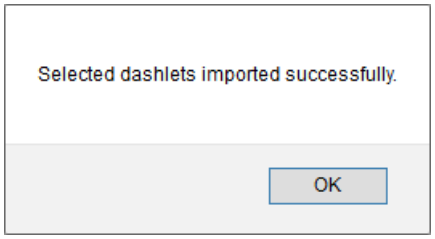

Figure 34

7. In **My Dashboard** page select ⊕ to add dashboard.

Figure 35

8. Choose appropriate name for **Title** and **Description**. Click **Save**.

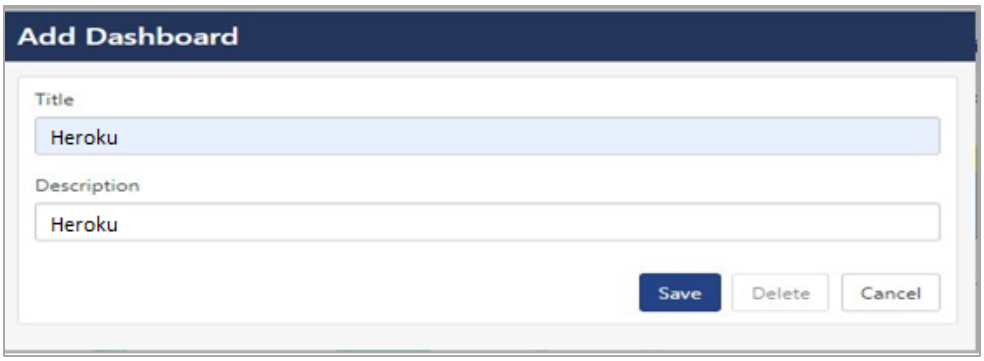

Figure 36

9. In **My Dashboard** page select to add dashlets.

Figure 37

10. Select imported dashlets and click **Add**.

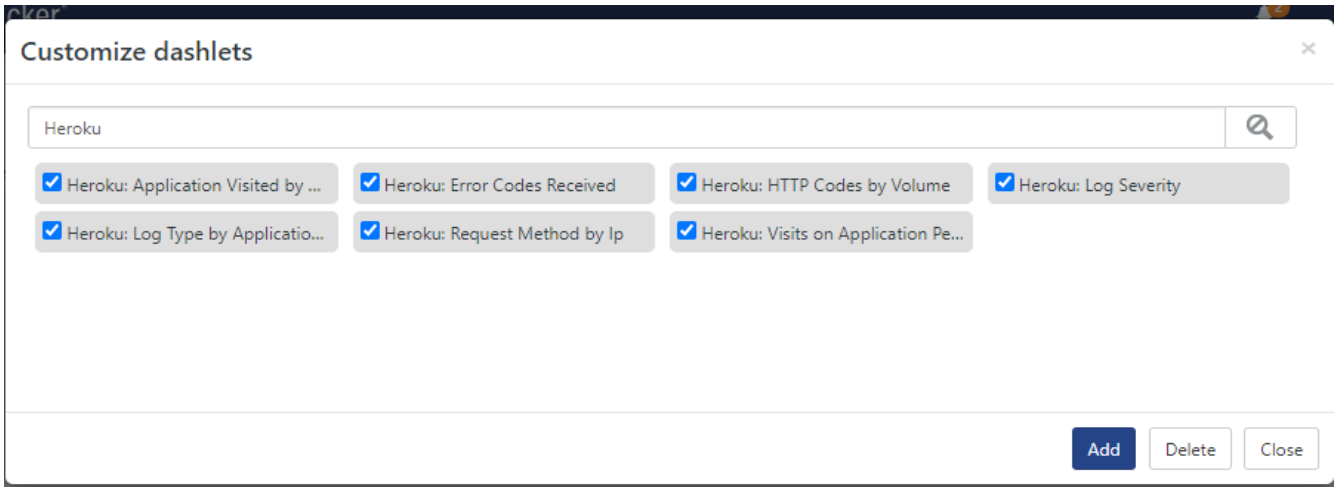

Figure 38

6. Verifying Heroku knowledge pack in EventTracker

6.1 Category

1. Logon to **EventTracker**.
2. Click **Admin** dropdown, and then click **Category**.

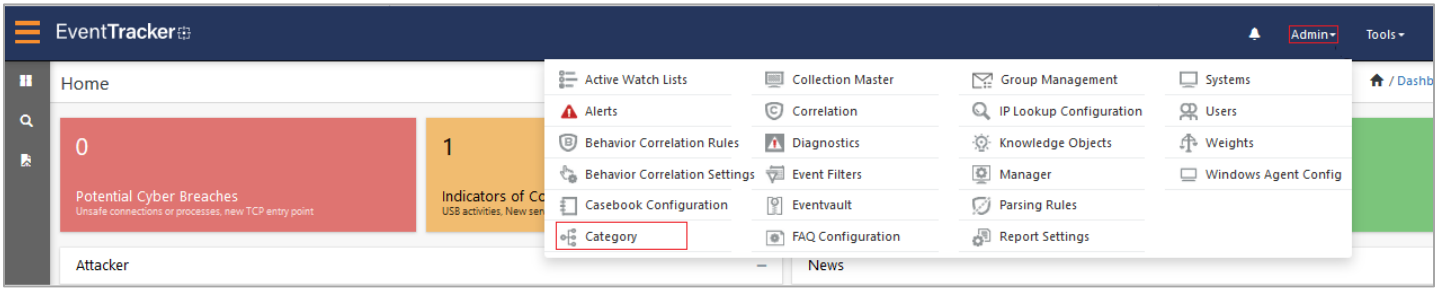

Figure 39

3. In **Category Tree** to view imported category, scroll down and expand **Heroku** group folder to view the imported category.

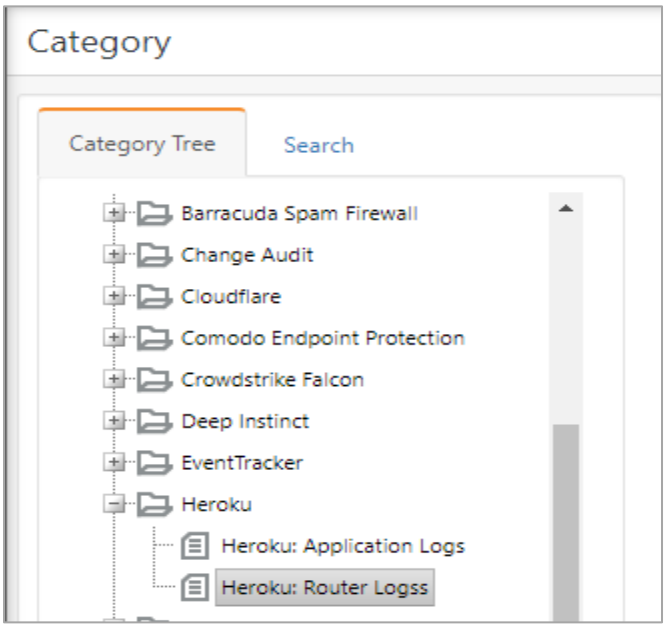

Figure 40

6.2 Alert

1. Logon to **EventTracker**.
2. Click the **Admin** menu, and then click **Alerts**.

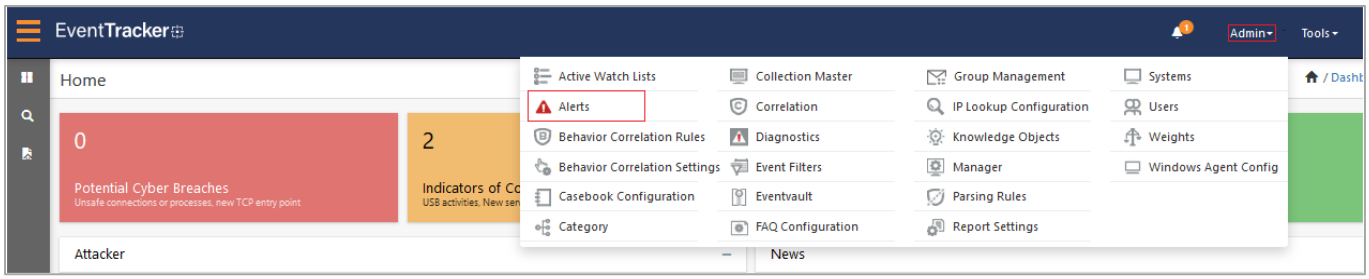

Figure 41

3. In the **Search** box, type '**Heroku**, and then click the **Go** button.
   Alert Management page will display the imported alert.

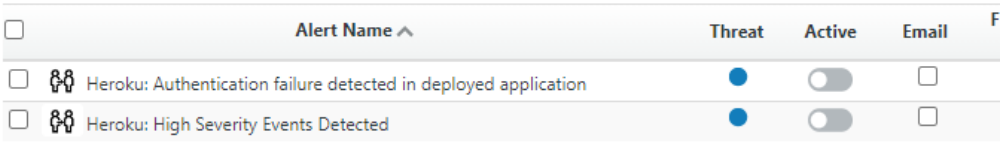

Figure 42

4. To activate the imported alert, toggle the **Active** switch.

   EventTracker displays message box.

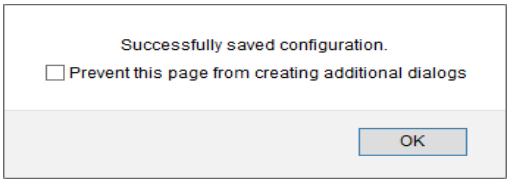

Figure 43

5. Click **OK**, and then click the **Activate Now** button.

NOTE: Specify appropriate **system** in **alert configuration** for better performance.

6.3 Knowledge Object

1. In the **EventTracker** web interface, click the **Admin** dropdown, and then select **Knowledge Objects.**

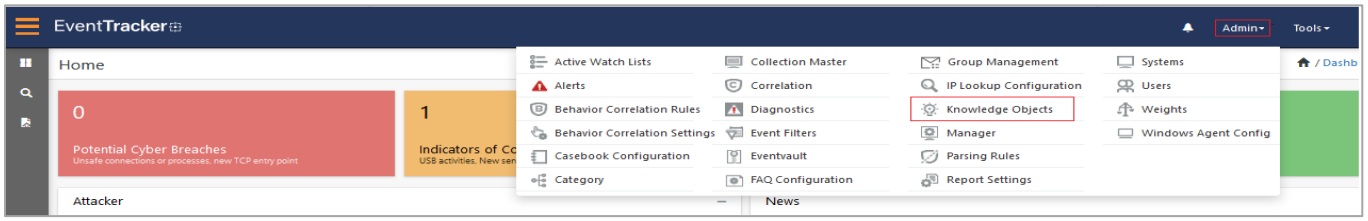

Figure 44

2. In the Knowledge Object tree, expand **Heroku** group folder to view the imported knowledge object.

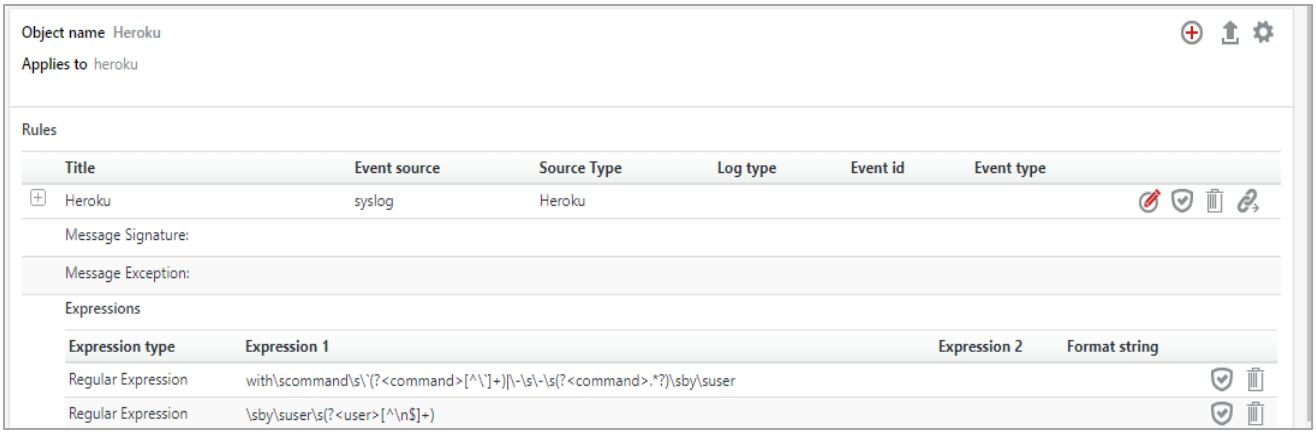

Figure 45

3. Click **Activate Now** to apply imported knowledge objects.

6.4 Report

1. In the **EventTracker** web interface, click the **Reports** menu, and then select **Report Configuration**.

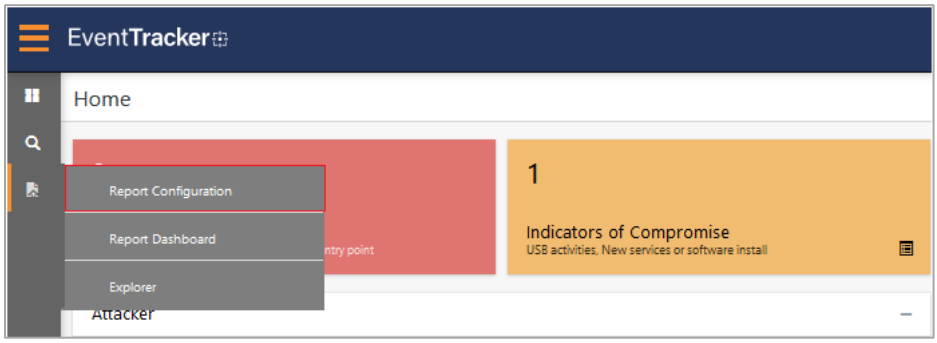

Figure 46

2. In **Reports Configuration** pane, select **Defined** option.
3. Click on the **Heroku** group folder to view the imported reports.

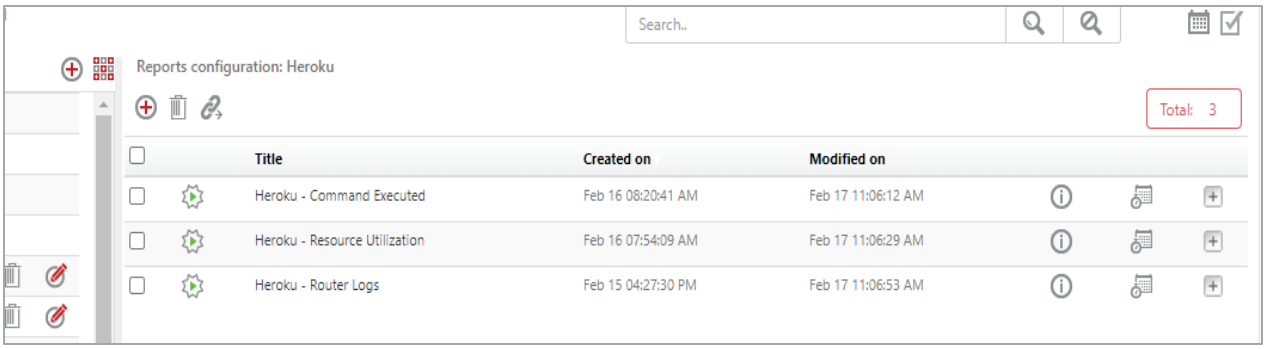

Figure 47

6.5 Dashboards

1. In the EventTracker web interface, Click on Home Button and select **My Dashboard**.

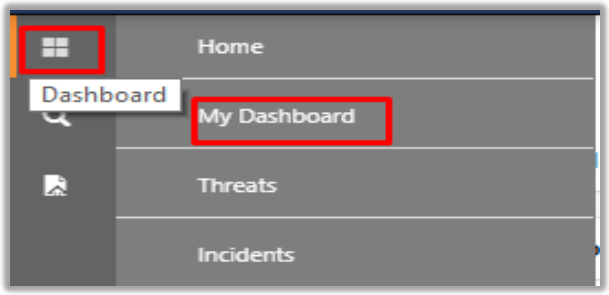

Figure 48

2. In the **Heroku** dashboard you should be now able to see something like this.

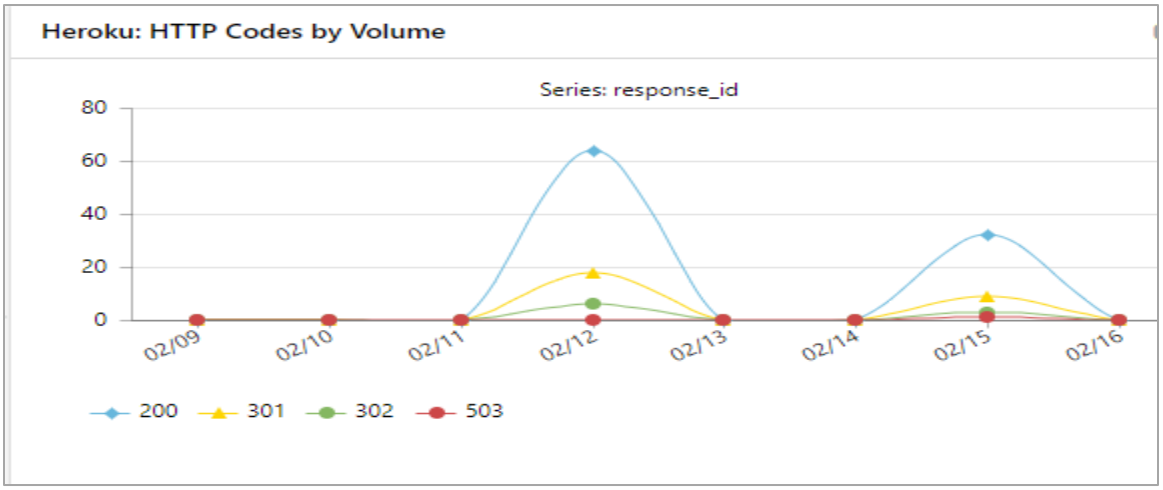

Figure 49