Triaging Alerts

Date of publish: 2017-11-06

CLOUDƎRA

https://docs.cloudera.com/

Legal Notice

Contents

Launch the Alerts User Interface

When an event violates your threat intelligence thresholds, you are sent an alert that you can view in the Cloudera Cybersecurity Platform (CCP) Alerts user interface, enabling you to evaluate the severity of the violation and manage it accordingly. The Alerts user interface is bundled with CCP and installed with the Ambari management pack.

Before you begin

• Elasticsearch must be up and running and should have alerts populated by HDP topologies.
• The Alerts UI defaults to port 4201. If you are already using port 4201 for another purpose, you must change the default port for the Alerts UI to another port number.

Procedure

1. Display the **Ambari** user interface.
2. In the Services pane, select **Metron**.
3. From the **Quick Links** menu, choose **Alerts UI**.

   Note: There is no login module for the Alerts UI.

Getting Started with the Alerts User Interface

The Alerts user interface provides mechanisms for viewing alerts, searching and filtering alerts, grouping alerts to facilitate management, and changing alert status. The Alerts user interface defaults to displaying the Alerts table when first opened.

You can use the Alerts user interface tool bar to perform searches and manage the Alerts UI settings.
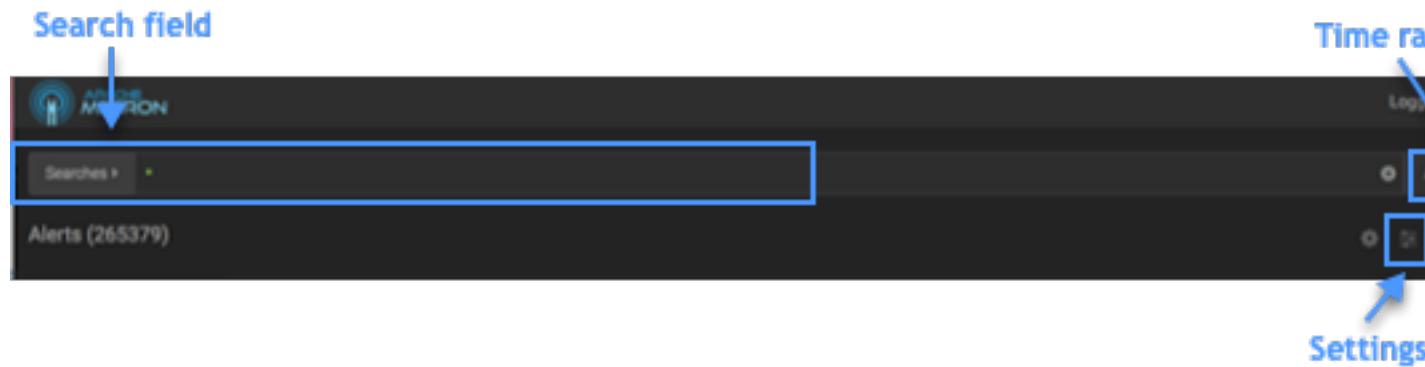
Table 1: Alerts UI Tool Bar

Tools	Description
Search field	You can search for alerts using the search bar above the Alerts table. The search tool follows the Lucene syntax which supports a rich query language.
Settings	You can configure the table row settings in the Alerts table to modify the appearance of the Alerts table and the refresh rate.

Tools	Description
Pause alerts	You can pause the Alerts UI polling while you adjust settings or focus on current alerts.
Time range	You can set the time range over which to perform alert polling or choose one of the predefined quick ranges.

You can use the Alerts table to view and manage alerts:

Table 2: Alerts Table

Tools	Description
Alerts table	The Alerts table displays the alerts generated by the CCP framework. The Alerts UI polls for alerts and refreshes the Alerts table at an interval that you can configure.
Filters	The Alerts UI currently provides five filters that you can apply to alerts. You can use these filters to refine the list of alerts and collect additional information on the alerts.
Alert status	You can change the status of or dismiss an alert.

Tools	Description
Group By	You can group alerts so you can apply filters, status, etc. on multiple alerts at a time.
Meta Alerts	The meta alert feature enables you to create a system entity that contains a collection of filtered alerts.

Viewing Alerts

The Alerts user interface defaults to displaying the Alerts table when first opened. You can modify the alerts displayed in the Alerts table to help identify issues.

Start and Pause Automatic Polling

The automatic polling in the Alerts UI defaults to a paused state when you first log in. To start automatic polling, you must click the play button.

Procedure

1.

To start automatic polling, click the (play) button.

Polling is also paused whenever you open any configuration panels or use the **Searches** field.

2.

To manually pause automatic polling, click the (pause) button.

Using the Alerts Table

The Alerts table displays the alerts generated by the CCP framework. The Alerts UI polls for alerts and refreshes the Alerts table at an interval that you can configure. This polling is paused whenever you open any configuration panels or use the **Searches** field.

By default, the alerts table shows the recent alerts at the top. For example, alerts are sorted descending on timestamp. For information on modifying these configurations.

The Alerts table also provides the threat intelligence score for each alert. Next to the score is a bar that indicates the severity of the score:

Red	A score of 69 or higher
Orange	A score between 39 and 69
Yellow	A score below 39

Configure Table Columns

You can configure the table columns in the Alerts table to customize the type of information you display. You can modify the information that shows in each column, the title of the column, and the order in which the columns are displayed.

Procedure

1.

Click (gear icon).

The Alerts UI displays the Configure Table that lists all the columns available across all the valid search indexes.

2. Select the fields you want to display and unselect the fields you do not want to display.
3. You can rename the column titles by entering a new name in the **Short Name** column.
   For example, 'enrichments:geo:ip_dst_addr:country' can be renamed to 'Dst Country'.
   This is just for display convenience and the changes are not propagated to any system in CCP.

4. You can also configure the order in which the selected columns will appear in the table by using the arrow icons.

5. Click **Save** to save your changes and dismiss the **Configure Table** panel.

6.

You can pause the Alerts UI polling by clicking the (pause button).

Set Timestamp to Local Time

The Alerts user interface timestamp defaults to Coordinated Universal Time (UTC) time. However, you can change the timestamp to reflect your local time.

Procedure

1.

Click the (slides icon) at the top of the table to display the Settings dialog box.
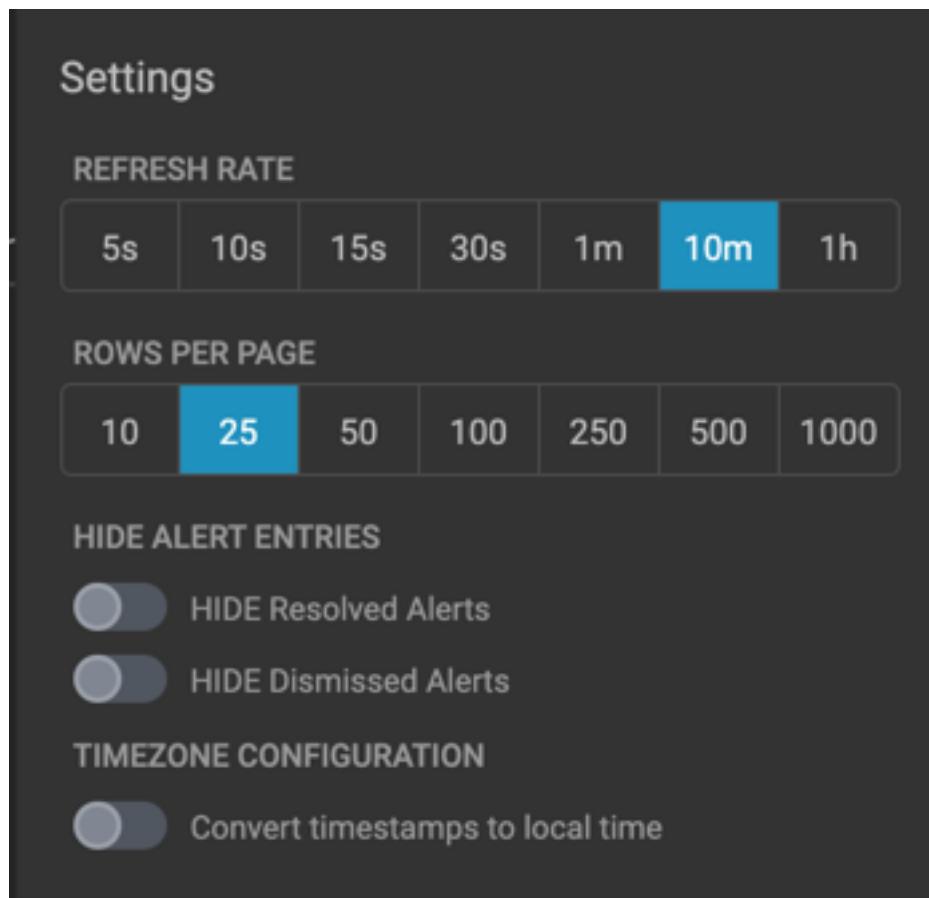
2. Click **Convert timestamps to local time**.

Modify the Alert Data Refresh Rate

You can use the table row settings in the Alerts table to change the refresh rate of the alert data.

Procedure

1.

Click the   (slides icon) at the top of the table to display the Settings dialog box.
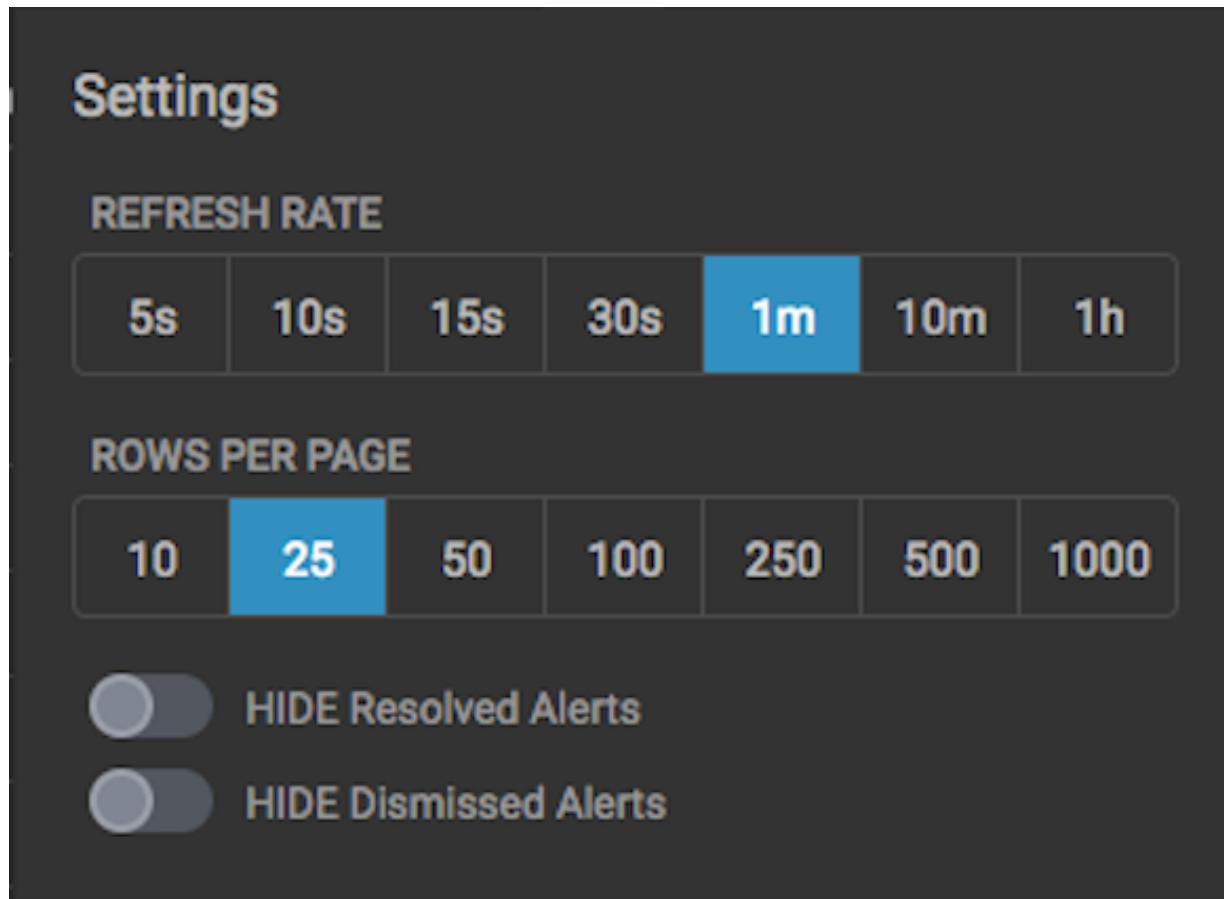
2. To modify the rate at which the Alerts table is refreshed with new alert information, choose a value under **Refresh Rate**.

After you modify the refresh rate, you will see a warning indicating that the current alert data is not in sync with your current parameters.

Click the   (search) button to refresh the alerts data.

Modify Number of Alert Table Rows

You can use the table row settings in the Alerts table to modify the number of rows that appear in the Alerts table.

Procedure

1.

Click the   (slides icon) at the top of the table to display the Settings dialog box.
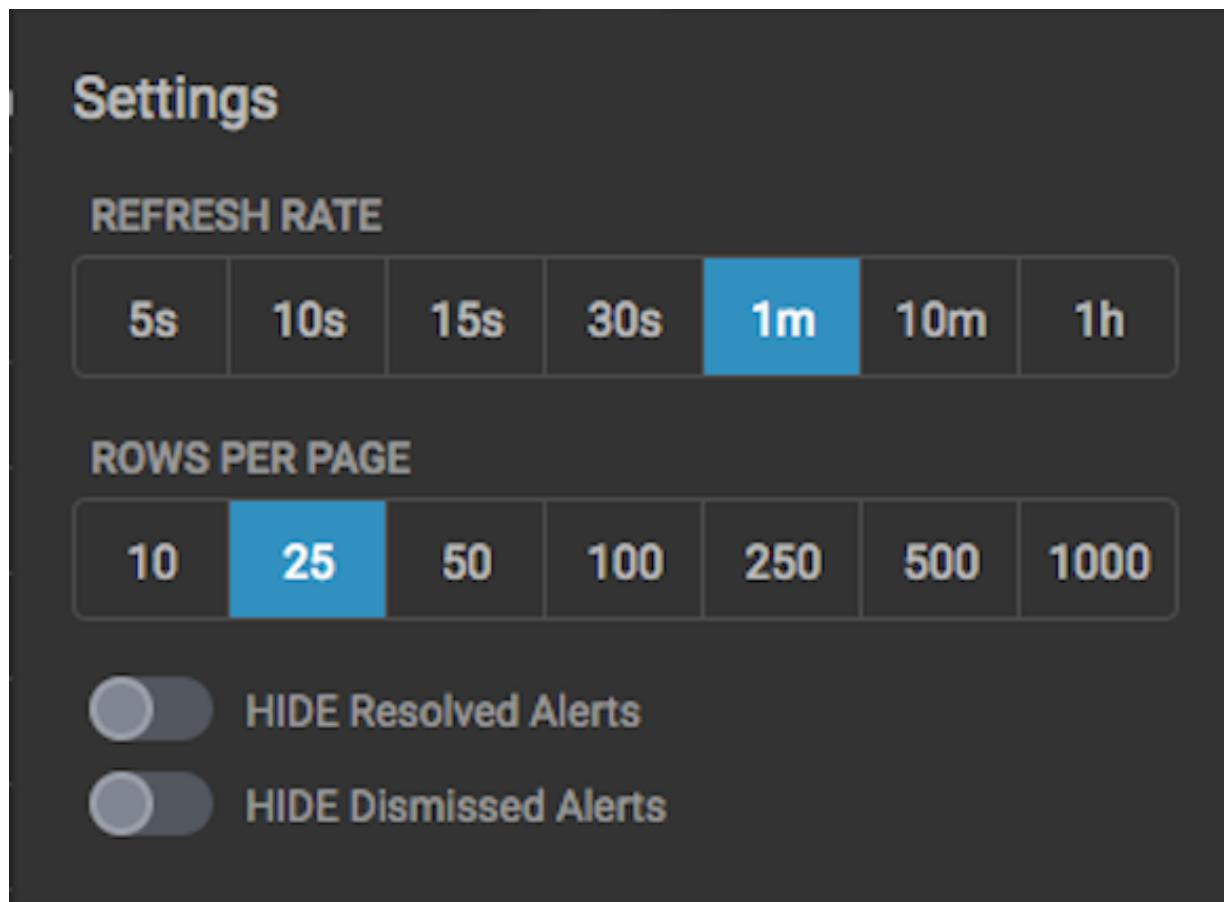
2. To modify the number of rows displayed in the Alerts table, choose a value under **Rows Per Page**.

> **Note:** The number of rows that are visible in the Alerts table is restricted by the size of your browser window.

Hide Resolved or Dismissed Alerts

You can use the table row settings in the Alerts table to hide resolved or dismissed alerts.

Procedure

1.

   Click the _____ (slides icon) at the top of the table to display the Settings dialog box.
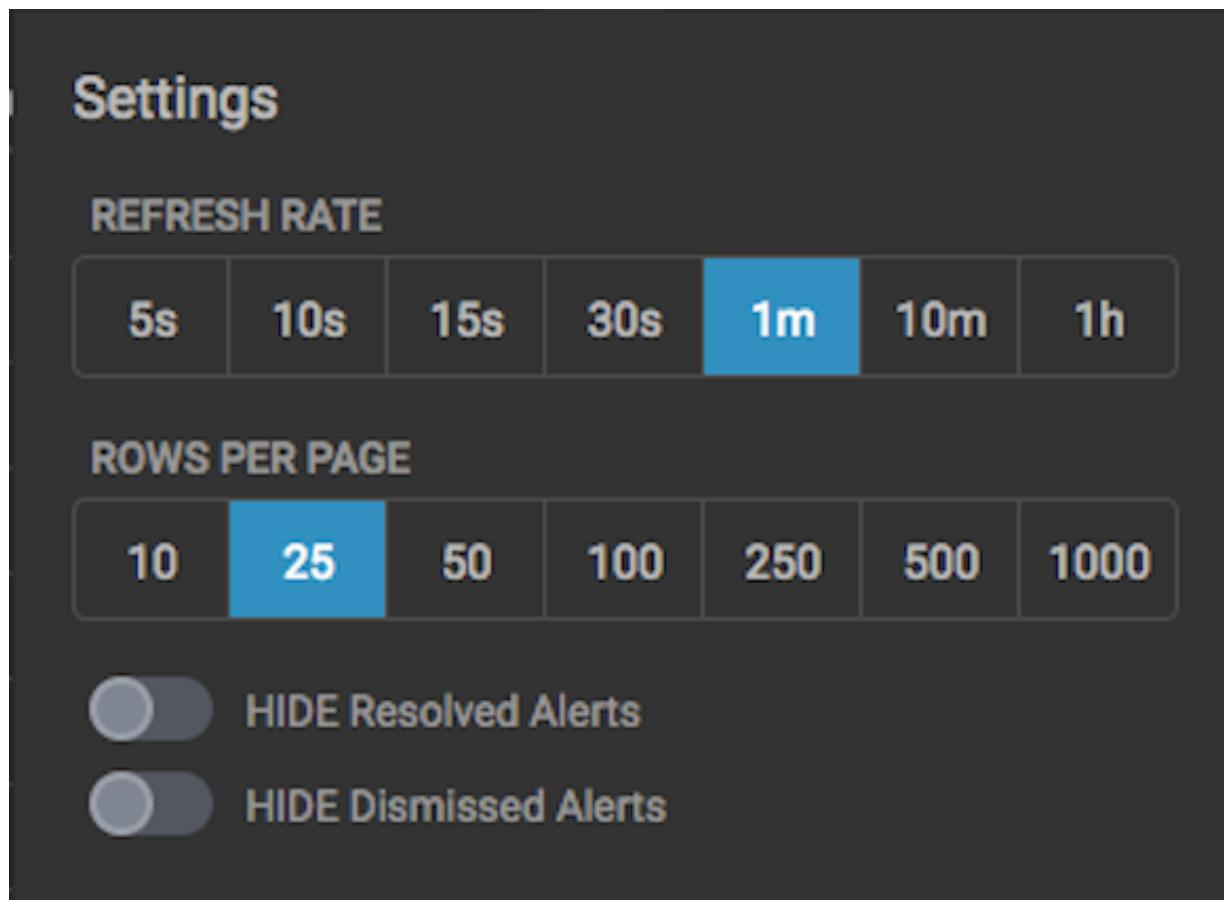
2. To hide resolved alerts or dismissed alerts, click the slide button next to the appropriate action.

Display Additional Alerts Information

In addition to displaying alert information in the Alerts table, you can display all the information about the alert in Elasticsearch in a separate panel.

Procedure

1. Select an alert by clicking on empty space in the alert row.

   The Alerts UI displays a panel listing all available data in Elasticsearch about the alert.

AVuKz1_n1LEanKS6qbtb	✕

Status

ESCALATE

NEW   OPEN   DISMISS

RESOLVE

alert_status	OPEN
dgmlen	40
enrichments:geo:ip_src_addr:city	Phoenix
enrichments:geo:ip_src_addr:country	US
enrichments:geo:ip_src_addr:dmaCode	753
enrichments:geo:ip_src_addr:latitude	33.4499
enrichments:geo:ip_src_addr:locID	5308655
enrichments:geo:ip_src_addr:location_point	33.4499,-112.0712
enrichments:geo:ip_src_addr:longitude	-112.0712
enrichments:geo:ip_src_addr:postalCode	85004
ethdst	00:00:00:00:00:00
ethlen	0x3C
ethsrc	00:00:00:00:00:00
guid	5eba8dec-278f-4f9f-b655-e98f6f4c1983
id	1906
ip_dst_addr	192.168.138.158
ip_dst_port	49197

2. The Status states at the top of the panel display the current status of the alert.

Search Alerts

You can search for alerts using the search bar above the Alerts table. The search tool follows the Lucene syntax which supports a rich query language.

Procedure

1. To search on an item that is displayed in the Alerts table, simply click on the item and it will display in the **Searches** field.

   Searches Field

2. You can also directly type in the **Searches** field to enter search criteria.

   For example, you can enter source:type:snort.

3. To remove an item in the **Searches** field, mouse over the information in the **Searches** field until an **x** appears at the end of the text. Click on the **x** to remove the search filter and the operator following or preceding it.

4. To clear the entire **Searches** field, click the **x** at the end of the field.

5. You can specify the time range of your search by using the time range selector on the far right of the **Searches** field.

> **Note:**
> The time-range selector is not available if you put a timestamp in the **Searches** field.

The time-range button defaults to **All time** which displays all alerts corresponding to the Searches parameters. To customize the time range, click the time-range drop-down menu and select one of the following:

Time Range	Enables you to enter or choose the start and end dates and times for your search. The valid date format is: YYYY-MM-DD HH:mm:ss.
Quick Ranges	Provides a list of pre-specified time ranges that you can choose.

Time Selector Dialog Box

After you make your choice, the time-selector label will reflect your selection.

Filter Alerts

The Alerts UI currently provides five filters that you can apply to alerts. You can use these filters to refine the list of alerts and collect additional information on the alerts. These filters are listed in the **Filters** panel on the left of the **Alerts** window.

Procedure

1. Click one of the filters in the **Filters** panel on the left of the window.

The Filter expands to list all of the facet values contained in the filter. For example, in the following figure, the **enrichments:geo_dst_addr:country** filter contain the countries Russia, France, and USA.

> **Note:**
>
> The UI displays the number of alerts corresponding to each facet next to the facet.

After you modify the filter, you will see a warning indicating that the current alert data is not in sync with your filter parameters:

Click the (search) button to refresh the alerts data.

2. You can continue to apply filters to the alerts displayed in the **Alerts** window to further refine the alerts list.

   As you select filters and facets, they are displayed in the **Searches** field.

   For example, in the following figure, we've applied the source.type filter with the bro facet and then the ip_dst_addr filter with the IP address 95.163.121.204.

3. You can also enter alert filters in the **Search** field.

For example:

alert_status:(NEW OR OPEN)

4.
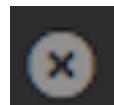
To clear filters that have been populated to the **Searches** field, click   (delete icon) at the end of the **Searches** field.

Manage Alert Status

You can manage one or more alerts at a time using the **ACTIONS** menu. You can use the **ACTIONS** to change the status of or dismiss an alert.

Procedure

1. Select an alert by clicking on empty space in the alert row.

The Alerts UI displays a panel listing the status of the alert all available data in Elasticsearch about the alert.

Alerts Information Panel

The current alert status is highlighted.

Note:

To manage more than one alert at a time, click the check boxes at the end of alert rows, then select the action you want to perform from the ACTIONS menu.

2. Click the new status you want to apply to the alert, then dismiss the panel.

3.

You can also add a comment to this action by clicking (Comment button), entering your comment in the **Comments** field, and clicking **ADD COMMENT**.
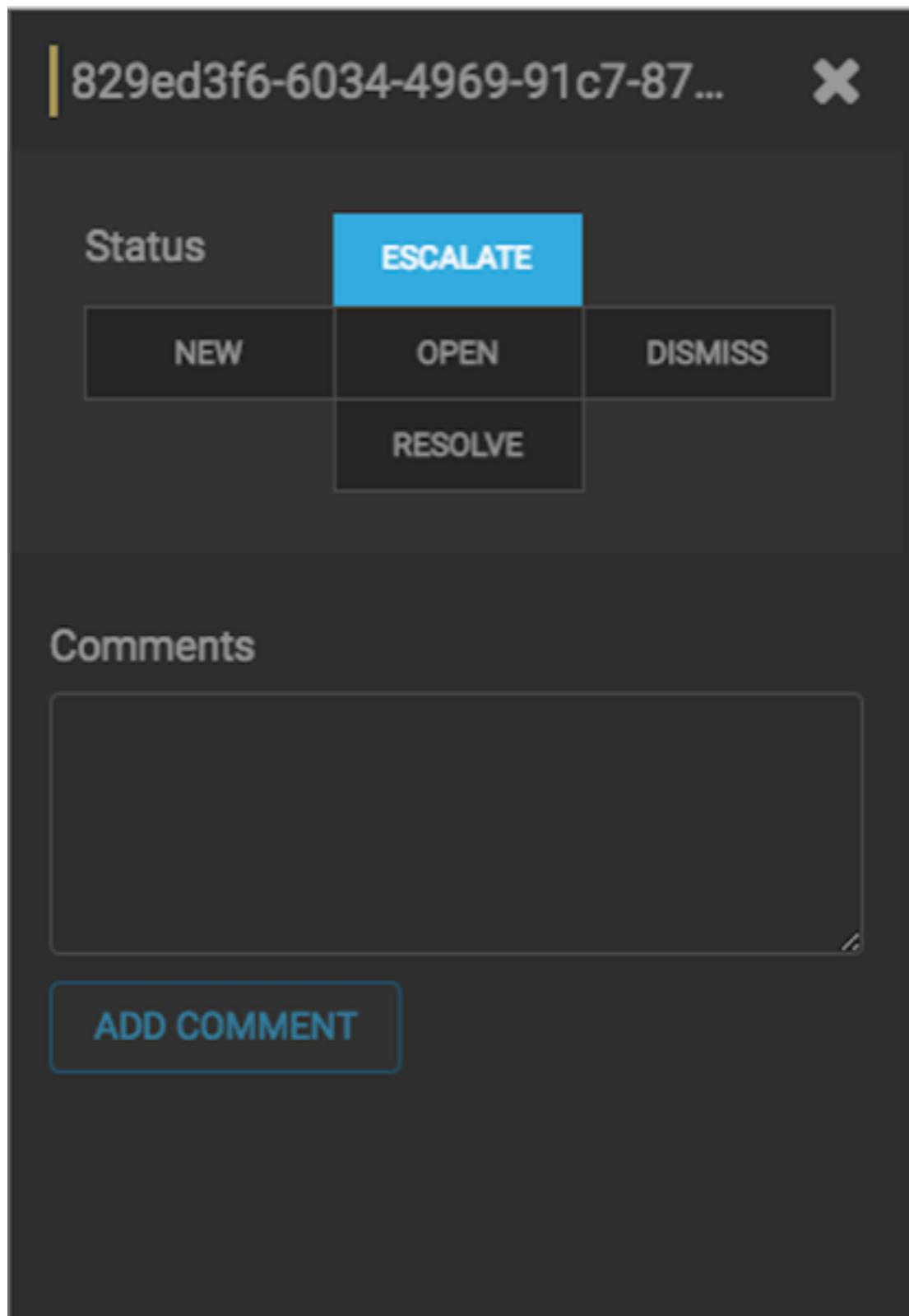
The Alerts UI indicates that an alert has one or more comments by displaying (comment icon) next to the alert status in the **Alerts** window.

Note:

You cannot add a comment to an alert contained in a meta alert. You can only add comments to the meta alert.

4. To delete a comment, click the comment to delete, then click the trash can icon.

Click OK in the **Confirmation** dialog box.

Escalate an Alert

You can escalate one or more alerts at a time to create an event that can be tracked by an external ticketing system.

Procedure

1. Select an alert by clicking on empty space in the alert row.

The Alerts UI displays a panel listing the status of the alert all available data in Elasticsearch about the alert.

Alerts Information Panel

The current alert status is highlighted.

Note:

To manage more than one alert at a time, click the check boxes at the end of alert rows, then select the action you want to perform from the ACTIONS menu.

2. Click **Escalate**.

CCP writes the event to a Kafka escalation topic. An external orchestration software can pick up the event from the topic and use the API to create an incident or append to an existing incident.

3.

You can also add a comment to this action by clicking (Comment button), entering your comment in the **Comments** field, and clicking **ADD COMMENT**.

Group Alerts

You can group alerts so you can apply filters, status, etc. to multiple alerts at a time.

Procedure

1. Click one of the groups listed by **Group By**.

The **Alerts** table view changes to a tree view listing the values of the groups.

In the following example, the group is source.type and the values are Yaf, Snort and Bro.

The Alerts UI displays the total number of alerts in the group below the Alerts total. See **Alerts in Groups (7560)**.
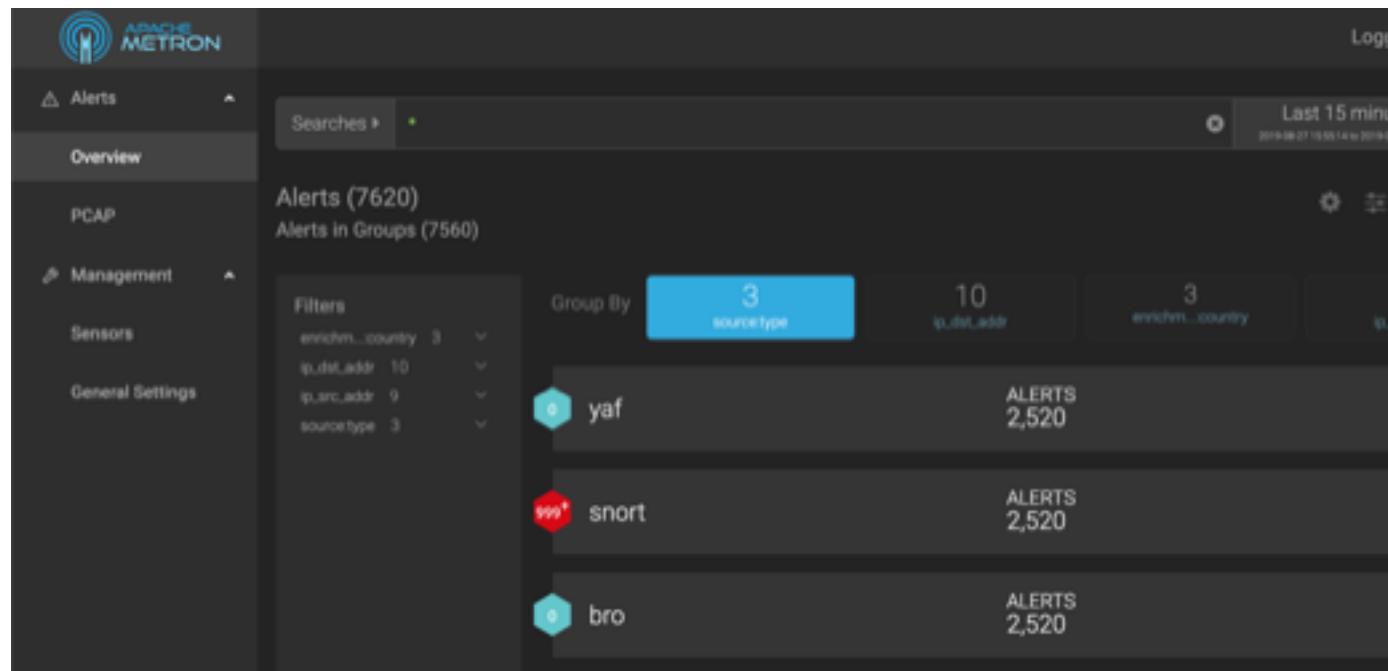
> **Note:** The icon to the left of the value provides the cumulative severity score for all the alerts in the value. If the score exceeds 999, then the value displays as 999+.

2. Click one of the values to list the alerts for that value.

3. You can click an alert to add it to the Searches field.

> **Note:** Searches will search through all the groups, not just the group containing the alert.

4. All features that are available for the Alerts table are available for the tree view.

For example, if you apply an action, such as Escalate, to an alert, it will apply to all alerts within the group. Similarly, if you search for a parameter, it will search all alerts within the group.

5. You can continue to refine your alerts by applying additional groups.

You can change the order in which the groups are applied to the alerts by clicking and dragging the groups on the **Groups By** line.

6. To ungroup your alerts and return to the Alerts window, click Ungroup which is located on the far right of the list of groups.

Create a Meta Alert

The meta alert feature enables you to create a save a group of filtered alerts. Like the group feature, you can group filtered alerts that pertain to an incident. However, with meta alert, you can save your grouping, creating a system entity, to view it later. Also, when you filter alerts, if a relevant alert is contained in a meta alert, the entire meta alert will be included in the filter results.

Procedure

1. Click one of the groups listed by **Group By**.

   The **Alerts** table view changes to a tree view listing the values of the groups.
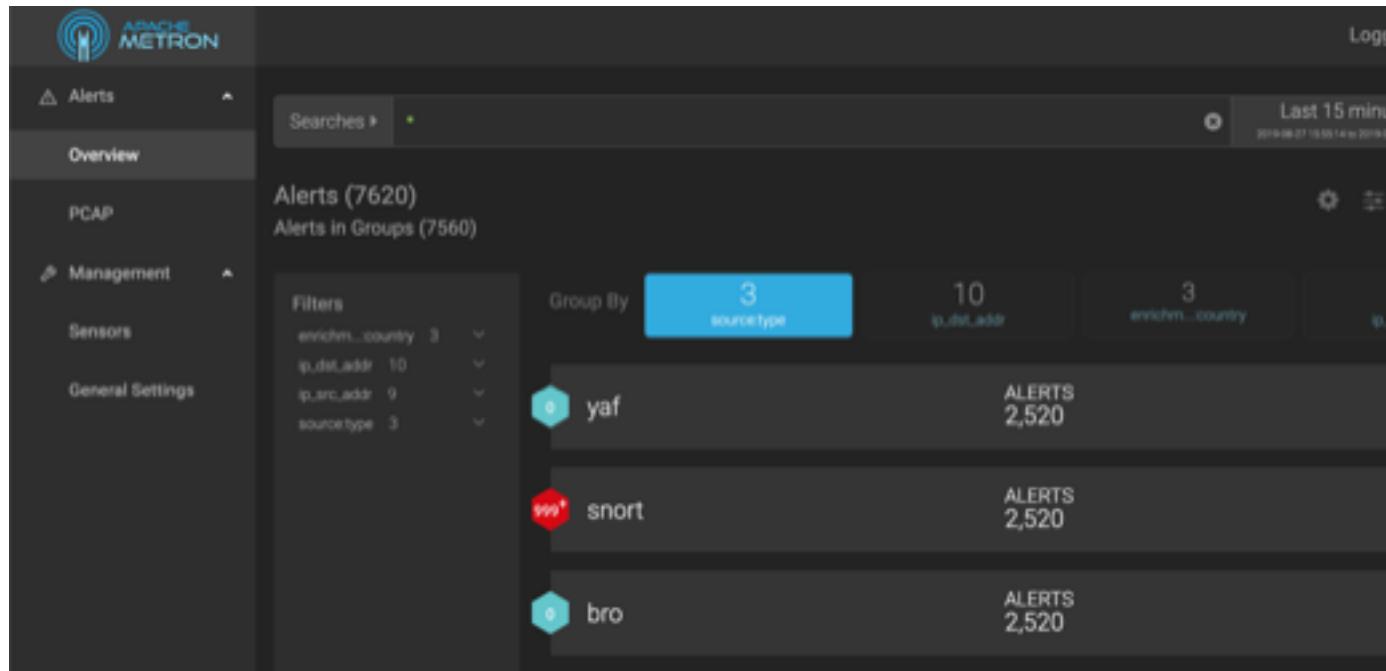
2. Use the **Search** and **GroupBy** options to create one or more groups containing alerts on which you want to focus.

3.

   When you have selected a group of alerts that you want to focus on, click _____ (meta alert icon), then confirm that you wish to create a meta alert with the selected alerts.

   The meta alert disappears from the tree view. You can still see the meta alert in the alerts table view.

4. You can rename your meta alert by completing the following steps:

   a) Display the Alerts UI display panel by clicking on empty space in the meta alert row.

b) Click the current meta alert name at the top of the panel and enter your new meta alert name.
c) Dismiss the panel by clicking the X in the upper right corner of the panel.

Integrating Third-Party Portals

You can reach other web services to view additional information about the alert data through dynamically created URLs by adding click-through navigation in the Alerts user interface. For example you can view third-party threat intelligence portals or corporate ticketing systems and directories. You can attach click-through navigation to a cell or a raw in the Alerts UI table.

Procedure

1. Change the isEnabled property in /$METRON/web/alerts-ui/assets/context-menu.conf.json file to true:

```
{
   isEnabled: true,
   config: {
   ...
```

2. To attach and configure a menu configuration to a column in the Alerts table, use the field ID to target the particular column.

For example, to configure the "Whois Reputation Service" item for the context menu, add the following information:

```
{
   isEnabled: true,
   config: {
     "host": [
       {
          "label": "Whois Reputation Service",
          "urlPattern": "https://www.whois.com/whois/{}"
       }
     ],
   ...
```

Clicking on the item opens another browser tab and calls the URL in the urlPattern config field.

a) The {} at the end of the urlPattern is a default placeholder. If you add any available alert property field at the end of the urlPattern, the value of the host field replaces the default placeholder.

For example:

```
{
   isEnabled: true,
   config: {
     "host": [
       {
          "label": "Whois Reputation Service",
          "urlPattern": "https://www.whois.com/whois/{ip_src_addr}"
       }
     ],
   ...
```

b) You can also reference multiple fields and combine default and specific placeholders:

```
{
   isEnabled: true,
   config: {
     "host": [
       {
          "label": "Whois Reputation Service",
          "urlPattern": "https://www.whois.com/whois/{}?
srcip={ip_src_addr}&destip={ip_dest_addr}"
```

```
      }
    ],
  ...
```

c) You can also configure multiple menu items to a particular column:

```
{
  isEnabled: true,
  config: {
    "ip_src_addr": [
      {
        "label": "IP Investigation Notebook",
        "urlPattern": "http://zepellin.example.com:9000/notebook/someid?
ip={ip_src_addr}"
      },
      {
        "label": "IP Conversation Investigation",
        "urlPattern": "http://zepellin.example.com:9000/notebook/someid?
ip_src_addr={ip_src_addr}&ip_dst_addr={ip_dst_addr}"
      }
    ],
    "host": [
      {
        "label": "Whois Reputation Service",
        "urlPattern": "https://www.whois.com/whois/{}?
srcip={ip_src_addr}&destip={ip_dest_addr}"
      }
    ],
  ...
```

3. To attach and configure a menu configuration to a row in the Alerts table, you can configure for an alert or a meta alert.

To cofigure for an alert, use the keyword alertEntry. For a meta alert, use the keyword metaAlertEntry:

```
{
  isEnabled: true,
  config: {
    "alertEntry": [
      {
        "label": "Internal ticketing system",
        "urlPattern": "http://mytickets.org/tickets/{id}"
      }
    ],
    "metaAlertEntry": [
      {
        "label": "MetaAlert specific item",
        "urlPattern": "http://mytickets.org/tickets/{id}"
      }
    ],
  ...
```

Save Your Searches

You can save your Alert searches for future reuse.

Procedure

1.
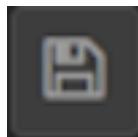
To save a search, click the   (save button) next to the **Searches** field.

2. When prompted, enter a name for the saved search parameters, then click **Save**.
This will save both the search parameters and the column configurations.

View Your Recent and Saved Searches

You can view both your recent searches and saved searches in the Alerts UI.

Procedure
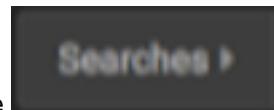
Click the   button to the left of the **Searches** field.

The Alerts UI displays the Searches panel.

Searches Panel

Searches   ✖

Recent Searches   ⌃

timestamp:1492682496000

ip_src_addr:204...p:1492682496000

ip:204-152.254.221

ip_src_addr:204.152.254.221

Saved Searches   ⌃

ip:204-152.254.221
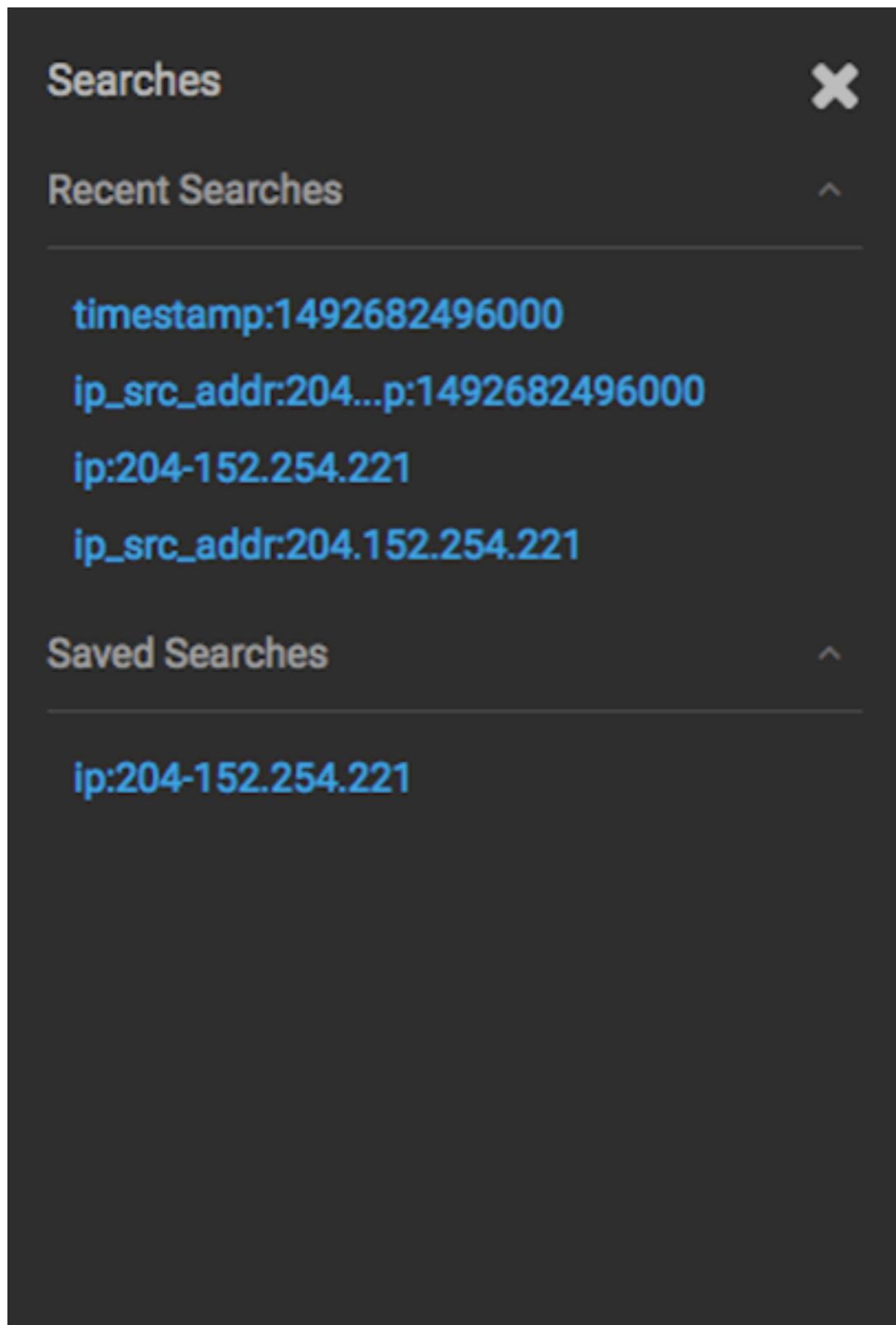
The **Searches** panel lists two types of searches:

Recent Searches   This is a list of your most recent searches.

                                             To display the saved search, simply click on the
                                             search name.

The Alerts UI saves a maximum of ten of your most recent searches.

Saved Searches

This is a list of your saved searches.

To display the saved search, simply click on the search name.

You can delete any of these saved searches by clicking the trash can icon that becomes visible when you mouse over each saved search.