



# Alerts

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All alerts are built based on the KPI metrics and divided into several alert groups. Each KPI metric generates one alert that belongs to a predefined alert group.

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## Alert Record

Alert Management records all alerts that are generated in the Cisco Operations Hub cluster. The **Alert Management** dashboard display an alert summary and detailed information about those alerts.

## Viewing Alert Summary

The **Alerts Overview** dashboard displays the alerts summary of total number of firing, pending, and warning alerts categorized based on severity. Cisco Operations Hub supports the following alert severity:

- Critical
- Major
- Minor

Use this task to view a summary of alerts.

1. Click the main menu at the top-left of the home page, and select **Dashboards** to view the **Dashboard Gallery** page.
2. Navigate to the **Operations Hub Dashboard** area and click **Alerts Overview** under the KPI section to open the **Alert Overview** page. You can view a total number of firing, pending, and warning alerts at a glance and a detailed list of these alerts based on severity.

# Viewing Alert Information

You can view a list of firing alerts that are currently open and a list of resolved alerts.

This procedure enables you to view the lists of firing or resolved alerts.

- Step 1** At the main menu, select **Dashboards** to view the **Dashboard Gallery** page.
- Step 2** Navigate to the **Operations Hub Dashboard** area and click **Alert Management** under the **KPI** section to open the **Alert Management** page.
- Step 3** In **KPI Alert Information** area, you can view the following lists:

**Table 1: Firing List (current)**

| Field              | Description   |
|--------------------|---|
| Firing Time        | Alert fired time  |
| Name               | Alert name.   |
| Severity           | Critical or warning   |
| ID                 | Source where the alert is fired   |
| Alert Group        | Category of the KPI alert   |
| Acknowledge status | Shows whether acknowledged or not   |
| Action             | Acknowledge or view an alert. Click the <b>View</b> link to display the <b>Alert Action</b> pane at the right side. The <i>*Alert Action</i> pane displays the alert details such as status, severity, firing time, notify time with description. You can view details and acknowledge firing alerts. |

**Table 2: Resolved List (total)**

| Field         | Description  |
|---------------|--|
| Firing Time   | Alert fired time   |
| Resolved Time | Alert resolved time  |
| Name          | Alert name.  |
| Severity      | Critical or warning  |
| Summary       | Alert summary  |
| Action        | View an alert. Click the <b>View</b> link to display the <b>Alert Action</b> pane at the right side. The <i>*Alert Action</i> pane displays the alert details such as status, severity, firing time, notify time with description. You can view details of each alert. |

Figure 1: KPI Alert Information

▼ KPI Alert Information

Firing List (current)

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| Firing Time         | Name         | Severity | cnBR ID              | Group      | Acked | Action |
|---------------------|--------------|----------|----------------------|------------|-------|--------|
| 2019-09-19 16:08:19 | CMNotHealthy | critical | 10.124.211.23.nip.io | Subscriber | false | ack    |
| 2019-09-19 16:08:19 | CMNotHealthy | critical | 10.124.211.23.nip.io | Subscriber | false | ack    |
| 2019-09-19 16:08:19 | CMNotHealthy | critical | 10.124.211.23.nip.io | Subscriber | false | ack    |
| 2019-09-19 16:02:19 | CMNotHealthy | critical | 10.79.193.206.nip.io | Subscriber | false | ack    |
| 2019-09-19 16:02:19 | CMNotHealthy | critical | 10.79.193.206.nip.io | Subscriber | false | ack    |
| 2019-09-19 16:02:19 | CMNotHealthy | critical | 10.75.199.64.nip.io  | Subscriber | false | ack    |
| 2019-09-19 16:02:19 | CMNotHealthy | critical | 10.75.199.64.nip.io  | Subscriber | false | ack    |

1 2 3 4 5 6 7 8

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Resolved List (total)

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| Firing Time         | Name           | Severity | cnBR ID              | Group      | Acked | Action |
|---------------------|----------------|----------|----------------------|------------|-------|--------|
| 2019-09-19 16:12:26 | USCHNotHealthy | critical | 10.75.199.64.nip.io  | RF         | false | view   |
| 2019-09-19 16:12:19 | CMNotHealthy   | critical | 10.75.199.64.nip.io  | Subscriber | false | view   |
| 2019-09-19 16:11:26 | DSCHNotHealthy | critical | 10.75.199.64.nip.io  | RF         | false | view   |
| 2019-09-19 15:14:36 | DSCHNotHealthy | critical | 10.75.199.168.nip.io | RF         | false | view   |
| 2019-09-19 15:14:36 | DSCHNotHealthy | critical | 10.75.199.168.nip.io | RF         | false | view   |
| 2019-09-19 15:14:36 | DSCHNotHealthy | critical | 10.75.199.168.nip.io | RF         | false | view   |
| 2019-09-19 15:12:39 | CMNotHealthy   | critical | 10.124.211.23.nip.io | Subscriber | false | view   |

1 2 3 4 5 6 7 8 9

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# Acknowledging Alerts

You can acknowledge the firing alerts. By default, every three hours, you are notified about the firing alerts by email. You can stop receiving the alert emails by setting the silence time, creator, and comments.

# Configuring Alerts

## KPIs

Key Performance Indicators (KPIs) provide insights into Operations Hub's overall system stability as well as components that are impacting system stability.

The Operations Hub supports the following KPI Alert Groups:

- Cluster
- OperationsHubInfra
- DbUpgrade
- InternalUserPasswordExpiry

## Configuring Alerts Using SMTP

This procedure configures alerts globally using Simple Mail Transfer Protocol (SMTP).

### SUMMARY STEPS

1. At the main menu, select to view the **Dashboard Gallery** page.
2. Navigate to the **Operations Hub Dashboard** area and click **Alert Management** under the KPI section to open the **Alert Management** page. You can configure global alerts in this page.
3. On the **Global Configuration** pane under the **KPI Alert Configuration** area, enter the **SMTP General Configuration** details.
4. Click **Config**.

### DETAILED STEPS

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- Step 1** At the main menu, select to view the **Dashboard Gallery** page.
- Step 2** Navigate to the **Operations Hub Dashboard** area and click **Alert Management** under the KPI section to open the **Alert Management** page. You can configure global alerts in this page.
- Step 3** On the **Global Configuration** pane under the **KPI Alert Configuration** area, enter the **SMTP General Configuration** details.

*Table 3: SMTP General Configuration Details*

| Field          | Description   |
|----------------|---|
| SMTP From      | The default <b>SMTP From</b> header field.  |
| SMTP Smarthost | The default SMTP smarthost used for sending emails, including the port number. The port number is 25 or 587 for SMTP over TLS (STARTTLS). Example:<br><code>smtp.example.org:587</code> |

| Field            | Description  |
|------------------|--|
| SMTP Hello       | The default hostname to identify to the SMTP server. |
| SMTP TLS Require | The default SMTP TLS requirement (Default: false).   |

**Step 4** Click **Config**.

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## Configuring Alert groups

This procedure enables or disables an alert group and add or delete email addresses of receivers for each alert group.

### SUMMARY STEPS

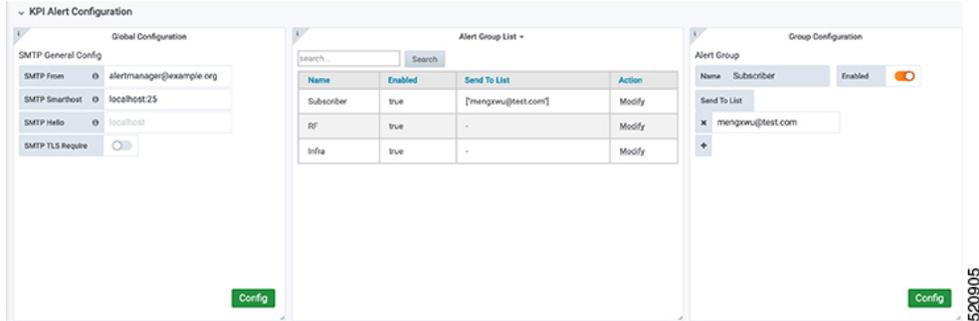
1. At the main menu, select **Dashboards** to view the **Dashboard Gallery** page.
2. Navigate to the **Operations Hub Dashboard** area and click **Alert Management** under the KPI section to open the **Alert Management** page. You can configure global alerts in this page.
3. On the **Group Configuration** pane under the **KPI Alert Configuration** area, choose the alert group from the **Alert Group** drop-down list.
4. Click the radio button next to **Enabled** to enable the alert group.
5. Click + to add email addresses under the **Send To List** so the recipients receive notification when an alert is generated under that respective group.
6. Click **Config**.

### DETAILED STEPS

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- Step 1** At the main menu, select **Dashboards** to view the **Dashboard Gallery** page.
- Step 2** Navigate to the **Operations Hub Dashboard** area and click **Alert Management** under the KPI section to open the **Alert Management** page. You can configure global alerts in this page.
- Step 3** On the **Group Configuration** pane under the **KPI Alert Configuration** area, choose the alert group from the **Alert Group** drop-down list.
- Step 4** Click the radio button next to **Enabled** to enable the alert group.
- Step 5** Click + to add email addresses under the **Send To List** so the recipients receive notification when an alert is generated under that respective group.
- Step 6** Click **Config**.

Figure 2: KPI Alert Configuration



## Monitoring Cluster Health

Table 4: Feature History

| Feature Name              | Release Information       | Description   |
|---------------------------|---------------------------|---|
| Cluster Health Monitoring | Cisco Operations Hub 22.2 | Using the alert management functionality, you can view and monitor the cluster health. An alert is raised when there is an issue, and you can take necessary action based on the alert severity. Use the <b>Kubernetes Cluster Health dashboard</b> dashboard to view the cluster health information. . |

Operations Hub enables you to view and monitor the cluster health using the alert management feature. For each cluster, you can map an alert-group to check the cluster health status and take required action. Each alert is categorized based on severity which helps you prioritize the action to be taken for that alert. If you do not specify any alert-group for the cluster, then all available alert-groups are added to the cluster.

Use the **Operations Hub Infra Alert Management API** to configure alert groups. You can access the **Operations Hub Infra Alert Management API** using the following steps:

1. Click the main menu at the top-left of the home page, and select **API Explorer**. The **API Explorer** page appears.
2. Click **KPI Alert Management** under **OPERATIONS HUB API**.  
The **Operations Hub Infra Authentication API** page appears.
3. Choose **GET /v1/cluster/health** under **Alert** to access the cluster health API.
4. Choose **GET /v1/alerts/groups** under **Alert Group** to access and configure the alert-groups. There are four alert-groups:
  - a. Cluster
  - b. DbUpgrade
  - c. InternalUserPasswordExpiry
  - d. OperationsHubInfra

Health alerts for a cluster can have the following severity:

- **Critical**—Indicates that the cluster has critical problems. Take immediate action before the service degrades further.
- **Minor**—Indicates that a few nonessential pods are not running in the cluster. If you see this alert, then rectify the problem at the earliest.
- **Clear**—Indicates that the cluster has no alerts and everything is working as expected.

Each alert-group is independent in nature, and therefore it is important to review all the alert-groups. Ensure that you take corrective actions that are based on the overall cluster health and not just for an individual alert-group.

For example, an essential pod such as `timescaledb` can have high CPU usage, which causes it to raise a **Critical** alert. This is part of the `Cluster` alert-group for which the cluster's health severity is **Critical**.

Similarly, if there are no critical alerts for the `InternalUserPasswordExpiry` alert-group, and all the pods are running in the cluster, then the cluster's health severity is **Clear**.

You can access the following dashboards to view the cluster health:

1. At the main menu, choose **Dashboards**. The **Dashboard Gallery** page appears.

2. Click **Kubernetes Cluster Health**.

The **Kubernetes Cluster Health** dashboard displays.

3. Click **Alerts Overview**.

The **Alerts Overview** dashboard displays.

