Cisco DNA Center Alerts Integration Guide

First Published: 2022-08-04

PagerDuty and Cisco DNA Center Integration

Cisco Digital Network Architecture offers centralized, intuitive management that makes it fast and easy to design, provision, and apply policies across your network environment. The Cisco DNA Center GUI provides end-to-end network visibility and uses network insights to optimize network performance and deliver the best user and application experience. The Cisco DNA Center events framework provides reliable notifications to help detect and correct infrastructure problems.

PagerDuty is an incident management platform that provides reliable notifications to detect and correct infrastructure problems. For information about PagerDuty, see https://www.pagerduty.com/.

The integration between Cisco DNA Center and PagerDuty enables the delivery of event notifications to PagerDuty. The integration enables IT organizations to subscribe to network issues identified by Cisco DNA Center and send notifications to PagerDuty. Customers have a real-time network issues view on the PagerDuty platform, which improves issue resolution and increases network uptime.

Support

To submit a service request, visit Cisco Support.

How the Integration Works

PagerDuty integration with Cisco DNA Center is accomplished using the PagerDuty Events REST APIs and the Cisco DNA Center Events Framework.

For more information about the Cisco DNA Center Events Framework, see the *Cisco DNA Center Platform User Guide* for your Cisco DNA Center release.

For information about the PagerDuty Events APIs, see https://developer.pagerduty.com/docs/events-api-v2/overview/.

Requirements

PagerDuty integrations require a Cisco DNA Center Admin base role for account authorization. If you do not have this role, contact an admin or account owner within your organization to configure the integration.

Integration Walkthrough

You can configure a Cisco DNA Center platform event notification to appear in PagerDuty as an alert. Complete the following steps to configure a Cisco DNA Center event notification so that it appears in PagerDuty.

Before you begin

Ensure that you have PagerDuty running on a system that you will integrate with Cisco DNA Center platform. Refer to your PagerDuty documentation for instructions on setting up PagerDuty.

You must have the appropriate permissions to perform the tasks as described in this procedure. For information about role-based access control for the Cisco DNA Center platform, see the *Cisco DNA Center Administrator Guide*.

Procedure

Step 1 In the Cisco DNA Center GUI, click the menu icon (☰) and choose **Platform** > **Developer Toolkit** > **Events**.

Step 2 In the **Events** window, review the events table.

Note You can adjust the events that are displayed in the GUI by entering a keyword in the **Find** field.

Step 3 Review the data on an individual event within the table.

The following **Events** data is provided:

- **Event ID**: Identification number for the event.
- **Name**: Name of the event (link).

  If you click this link, the **Name** slide-in pane opens for the event. The **Name** slide-in pane has **Events Details** and **Active Subscriptions** tabs.
- **Description**: Brief description of the event.
- **Type**: Network, App, System, Security, or Integrations type of event.
- **Category**: Error, Warn, Info, Alert, Task Progress, Task Complete.
- **Severity**: 1 through 5.

  Note Severity 1 is the most important or critical priority and should be assigned for this type of an event.
- **Status**: Subscription status (whether a user has subscribed to the event). If subscribed to an event, a link appears in this column to the **Active Subscriptions** tab.

Step 4 Click a **Name** link to open an event subscription slide-in pane.

Step 5 Review the data displayed in the event subscription slide-in pane.

The following **Event Details** tab data is displayed:

- **Description**: Brief description of the event and how it is triggered.
- **Event ID**: Identification number of the event.
- **Version**: Version number of the event.
- **Namespace**: Namespace of the event.

  The default value for all of the events is ASSURANCE.
- **Domain**: REST API domain to which the event belongs.

- **Sub Domain**: Subgroup under the REST API domain to which the event belongs.
- **Type**: Network, App, System, Security, or Integrations type of event.
- **Category**: Error, Warn, Info, Alert, Task Progress, Task Complete.
- **Severity**: 1 through 5.

  Note Severity 1 is the most important or critical priority and should be assigned for this type of an event.

- **Cisco DNA Event Link**: Event broadcast using REST URL.
- **Note**: Additional information about the event or to help understand the event.
- **Tenant Aware**: Whether the event is tenant aware or not.
- **Tags**: Tags indicate what Cisco DNA Center component is affected by the event. The default value for tags is ASSURANCE with more syntax for the specific Assurance issue.
- **Supported Endpoints**: What endpoint types are supported for the event notifications. The following endpoints are supported:
  - REST API
  - Syslog server
  - Email
  - SNMP trap
- **Model Schema**: Presents model schema about the event:
  - **Details**: Example of model schema detail for the event.
  - **REST Schema**: REST schema format for the event.

Step 6 Click the **Active Subscriptions** tab.

The following **Active Subscriptions** tab data is displayed:

- **Broadcast Methods**: Email, REST API, or SNMP trap.
- **Count and Instances**: Number of instances of notifications for emails, REST APIs, or SNMP traps.

  Note After subscribing to an event, click the subscription count under **Count and Instances** to edit or unsubscribe from the active subscription. After clicking the individual subscription count, click **Unsubscribe** to unsubscribe or **Edit** to further edit it. For multiple subscriptions, you must unsubscribe from each subscription one at time. The ability for multiple subscribing or unsubscribing is not supported using the GUI.

- **Actions**: Either unsubscribe or edit the active subscription.

  Note After subscribing to an event, a **Try It** button appears in the **Active Subscriptions** tab. Click this button to run an event simulation.

Step 7 Click the **Subscribe** button to add this event to your active subscription of events. For a *PagerDuty subscription*, configure the following fields:

- **Name**: Name of the event.
- **Subscription Type**: **PagerDuty**.
- **Select an existing endpoint**: Select the subscription endpoint.
- **Create a new endpoint**: Enter a new **Endpoint Name** and **Endpoint Description**.

Enter values for the following fields:

- **PagerDuty Events API URL**
- **PagerDuty Integration Key**
- **PagerDuty Events API Version**

Click **Subscribe** to save and enable the subscription.

Step 8 Review your subscriptions in the **Active Subscriptions** tab.

The following information is provided for a subscription:

- **Broadcast Method**: Email, REST API, or SNMP trap notification.
- **Counts and Instances**: Number of instances of notification.

  Click the **Unsubscribe** and **Edit** links to unsubscribe or edit the subscription.
- **Actions**: Actions taken for the events.

Note You can adjust the subscriptions that are displayed in the GUI by clicking the **Filter** icon and using the filter, or entering a keyword in the **Find** field.

What to do next

Access PagerDuty to review the events.

The Cisco DNA Center events will appear in PagerDuty as alerts within the PagerDuty **INCIDENTS** window. You can review and mark the alert as **Resolved** in this window.

Integration Workflow Test

Figure 1: Cisco DNA Center-to-PagerDuty Integration

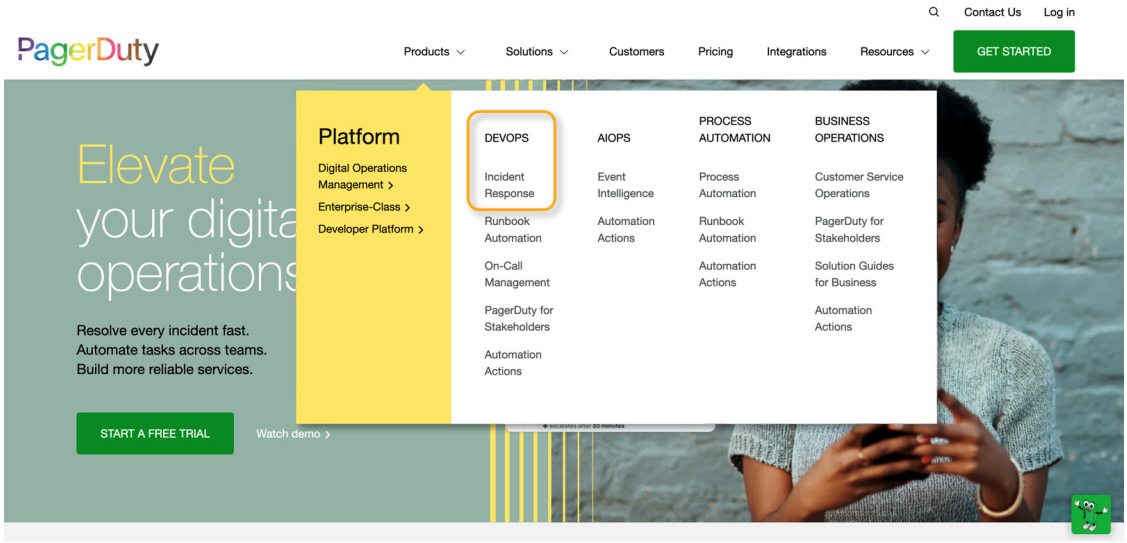


Figure 2: Create a PagerDuty Integration

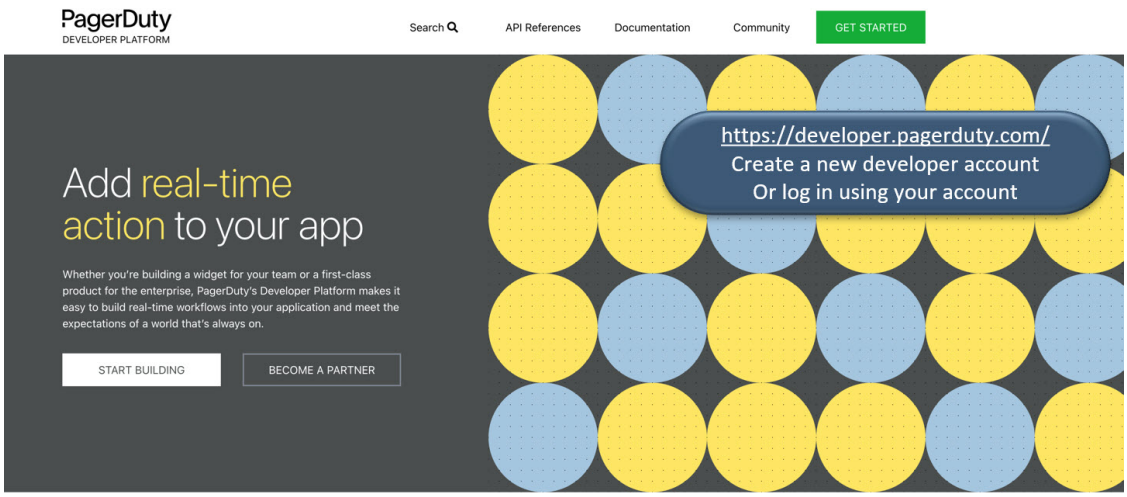


Figure 3: Create a New PagerDuty Service (1 of 6)

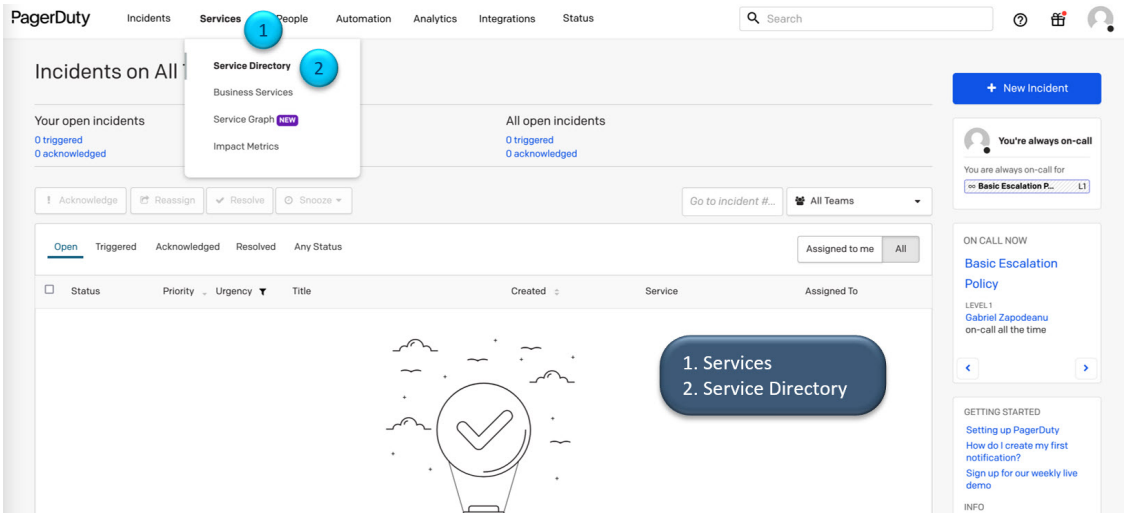


Figure 4: Create a New PagerDuty Service (2 of 6)

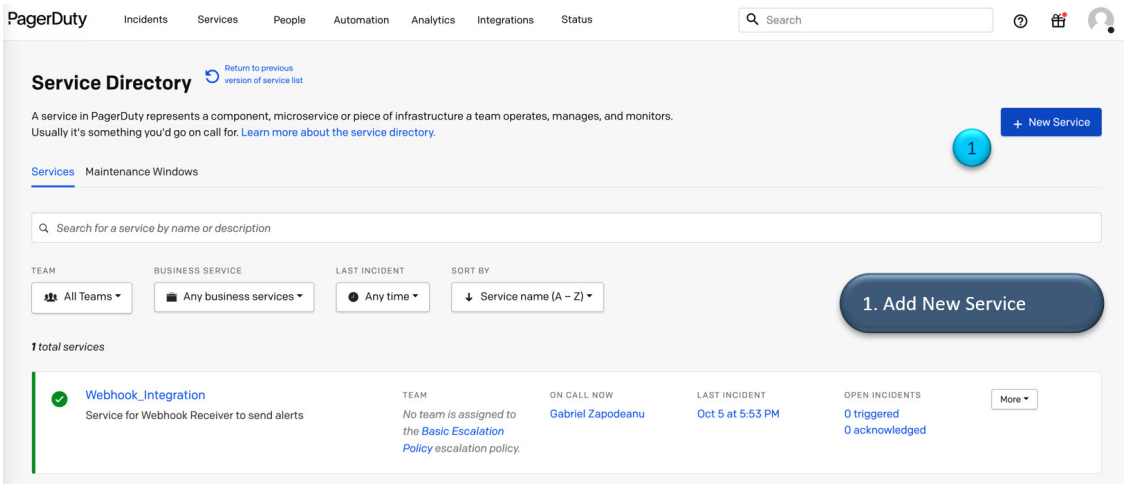


Figure 5: Create a New PagerDuty Service (3 of 6)

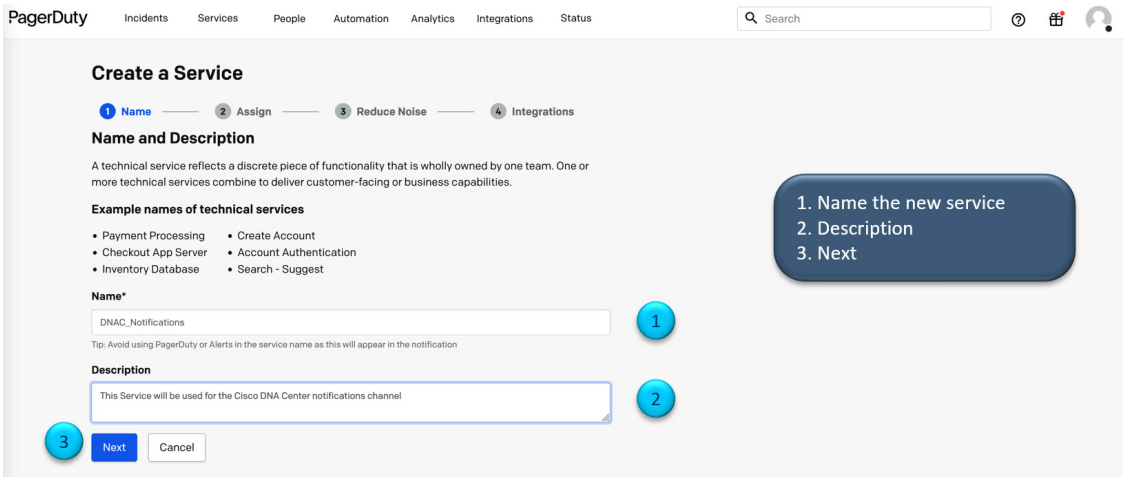


Figure 6: Create a New PagerDuty Service (4 of 6)

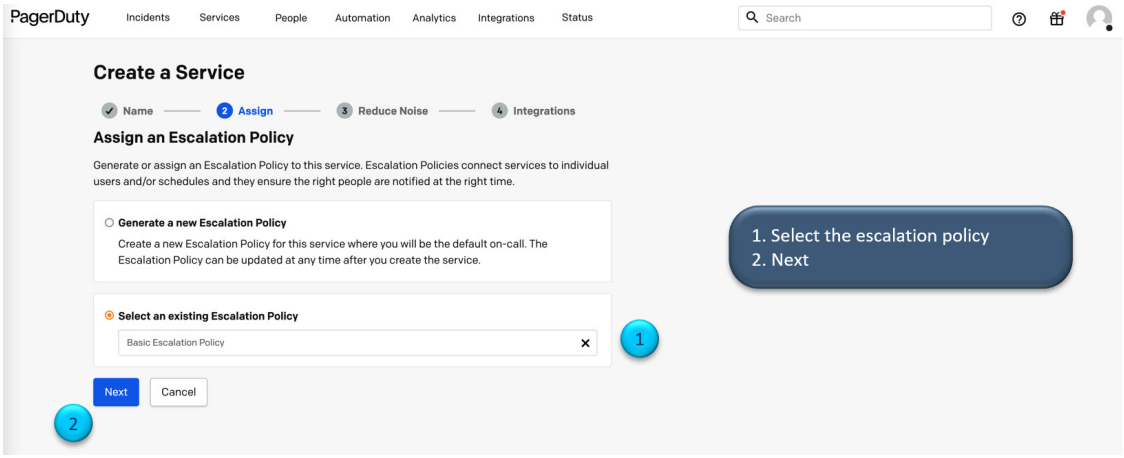


Figure 7: Create a New PagerDuty Service (5 of 6)

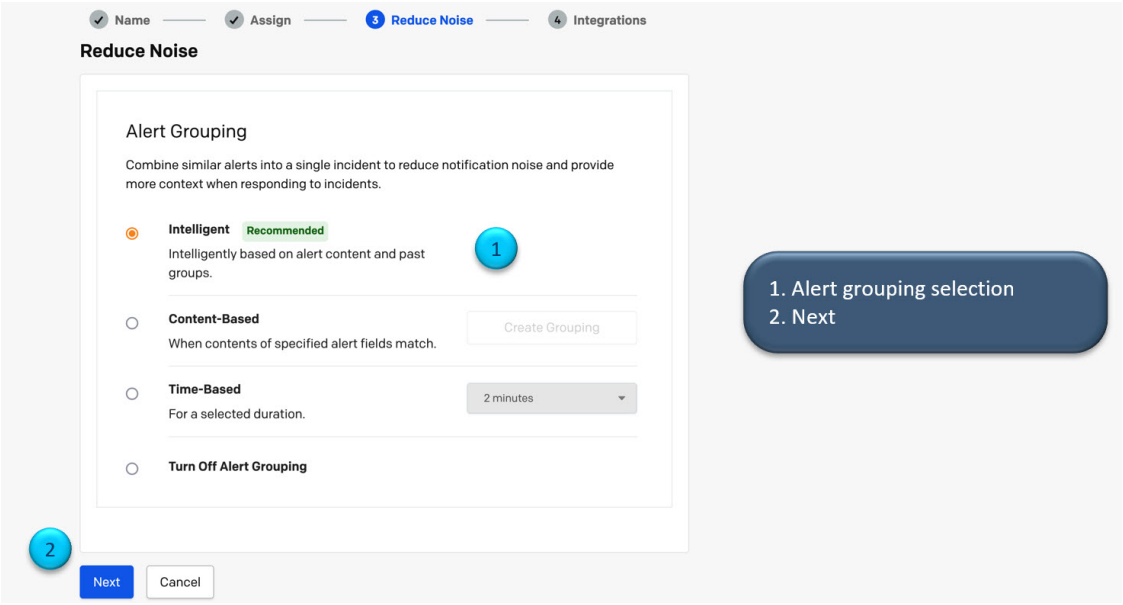


Figure 8: Create a New PagerDuty Service (6 of 6)

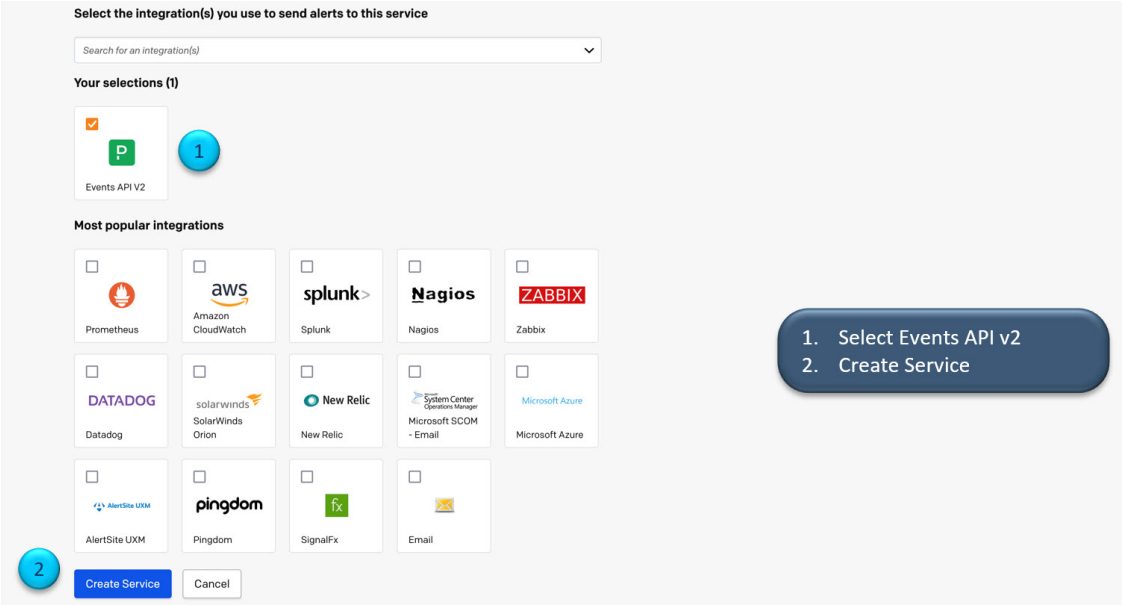


Figure 9: Save the Integration Key and URL

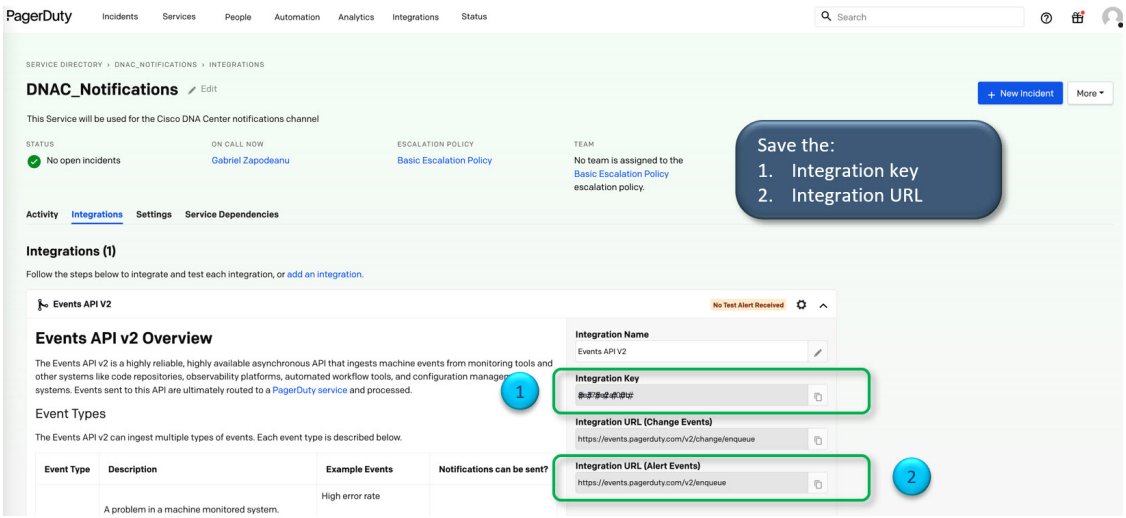


Figure 10: PagerDuty Integration Details

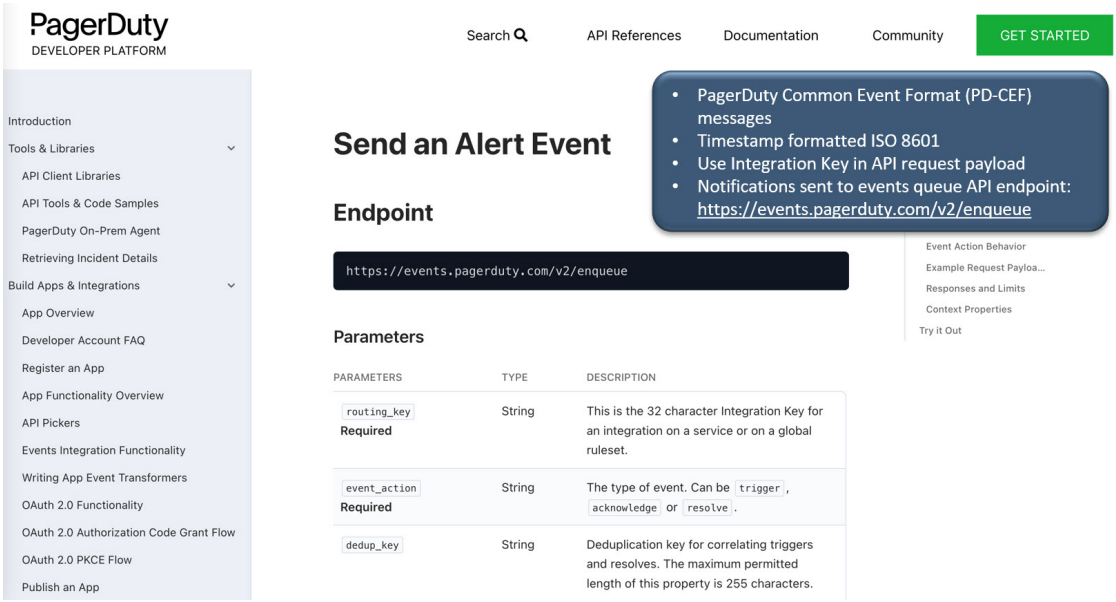


Figure 11: Notifications and Escalation Rules

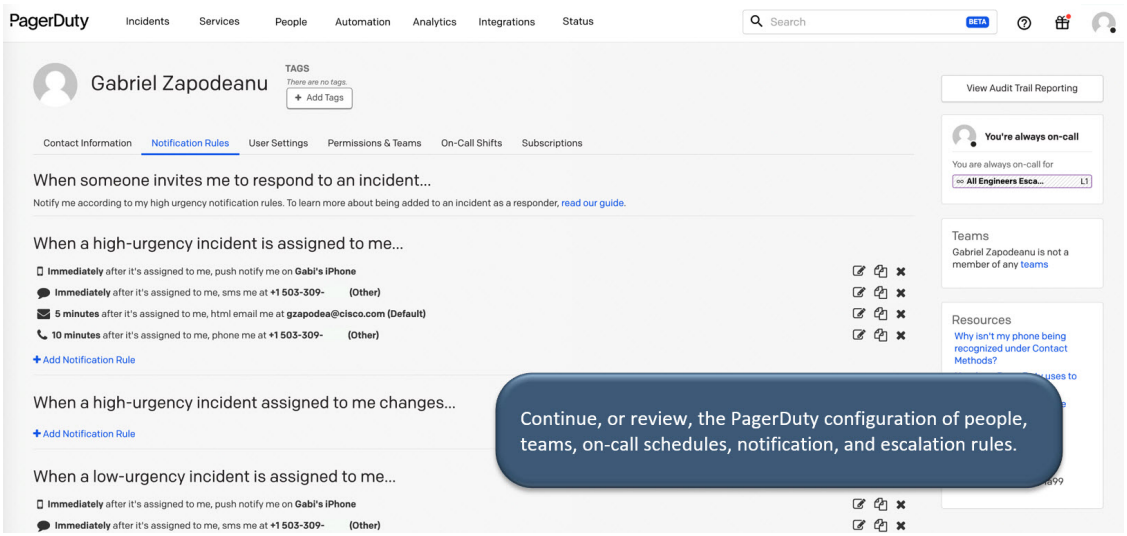


Figure 12: Subscribe to Events (1 of 2)

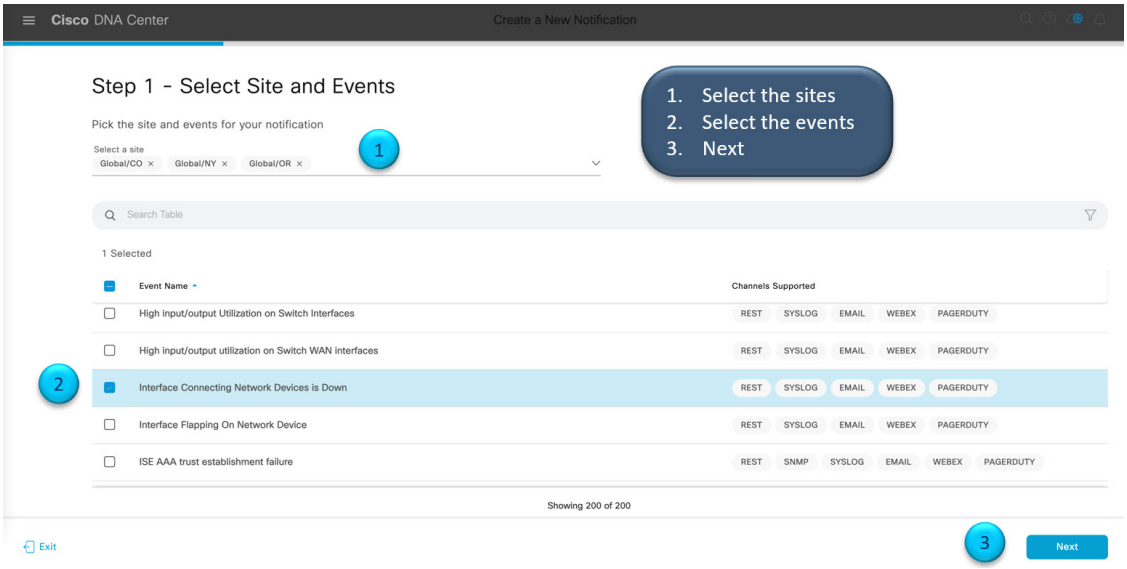


Figure 13: Subscribe to Events (2 of 2)

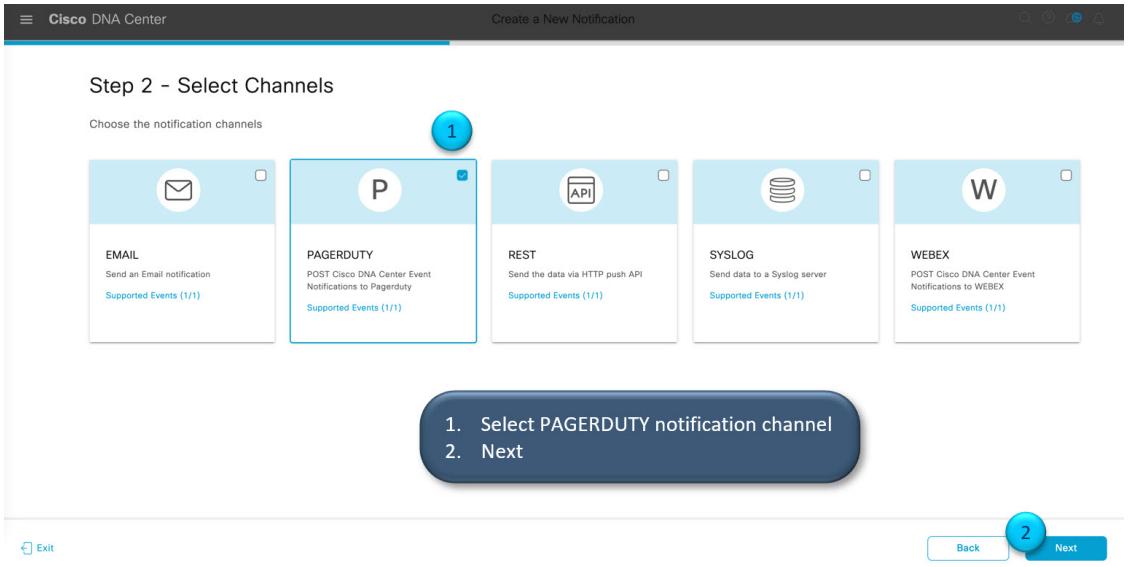


Figure 14: Configure PagerDuty Destination (1 of 2)

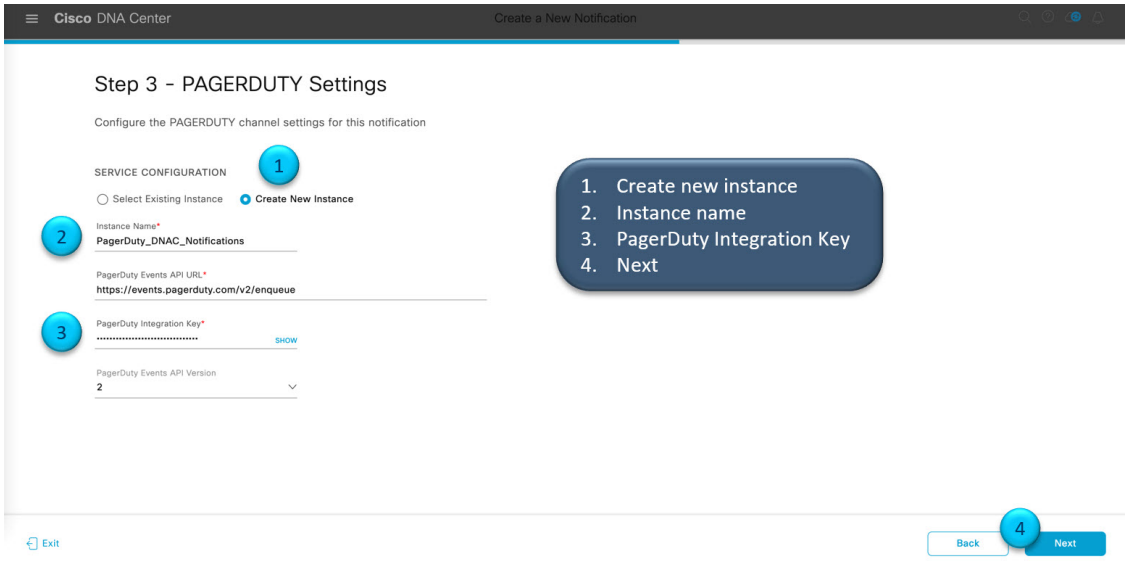


Figure 15: Configure PagerDuty Destination (2 of 2)

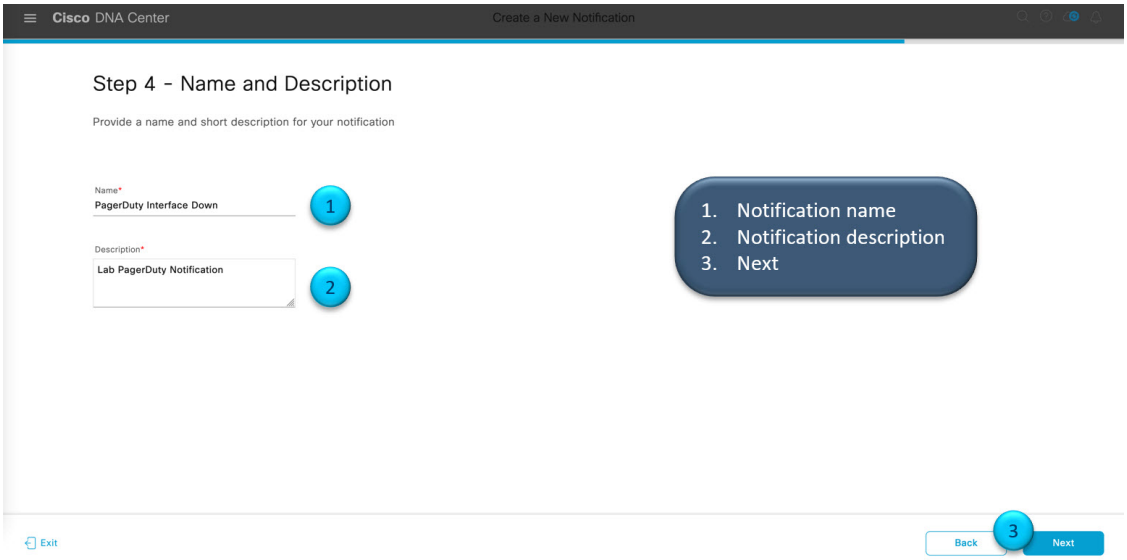


Figure 16: Review the New PagerDuty Event Notification

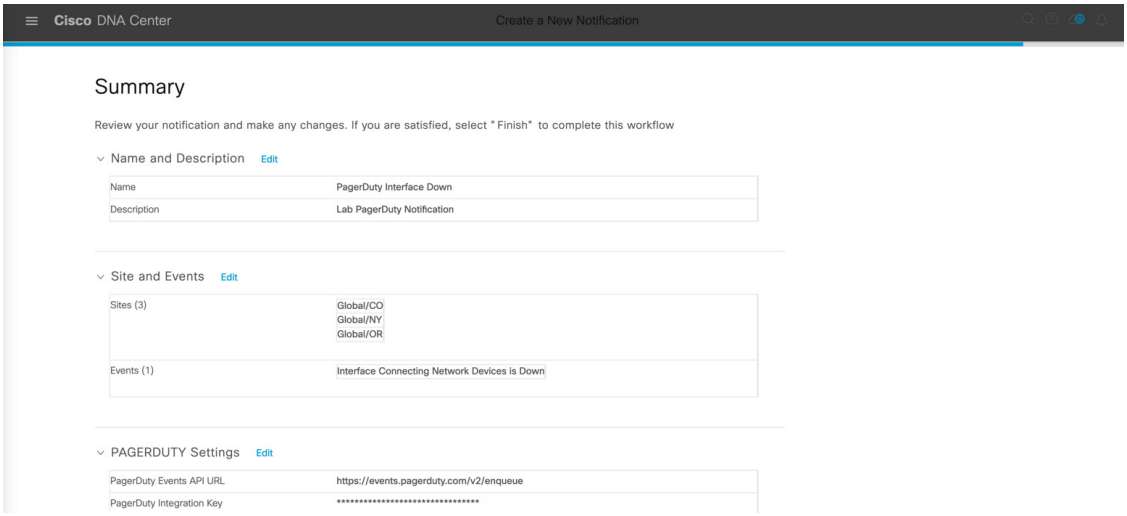
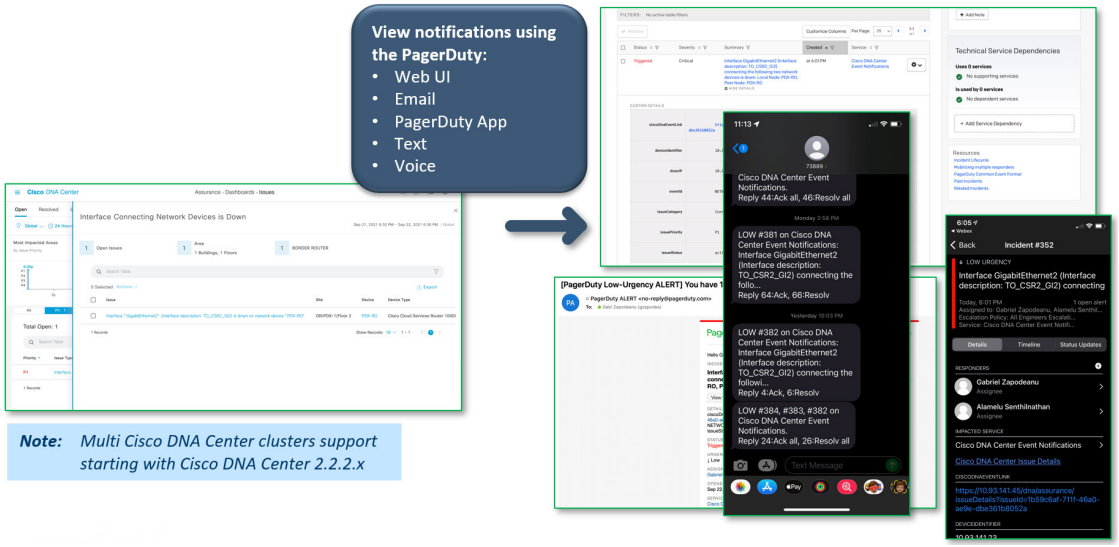


Figure 17: PagerDuty Notification Channel



Note: *Multi Cisco DNA Center clusters support starting with Cisco DNA Center 2.2.2.x*