Datacenter Advanced Enrichment Policies PowerPacks

Datacenter Advanced Enrichment Policies PowerPacks version 100

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Chapter 1

Introduction to Datacenter Advanced Enrichment Policies PowerPacks

Overview

This manual describes how to use the run book automation policies found in the various "Datacenter Advanced Enrichment Policies" PowerPacks related to the "Datacenter Advanced Enrichment Actions" PowerPack.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon ( ).
- To view a page containing all of the menu options, click the Advanced menu icon (•••).

This chapter covers the following topics:

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What are the Datacenter Advanced Enrichment Policies PowerPacks?

The set of "Datacenter Advanced Enrichment Policies" PowerPacks contain device-specific automation policies (and additional event policies not included in other ScienceLogic PowerPacks) that you can configure to collect additional diagnostic information when events occur. You can use this additional data about the event to provide instructions on how to troubleshoot and resolve that event.

NOTE: You must install the "Datacenter Advanced Enrichment Actions" PowerPack before you can install and use any of the related Policies PowerPacks. For more information, see *Datacenter Advanced Enrichment Actions PowerPack*.

Available Automation Policies and Event Policies

The following table lists the number of automation policies and event policies in each of the "Datacenter Advanced Enrichment Policies" PowerPacks:

Device Type	Number of Automation Policies	Number of Additional Event Policies
Cisco Collaboration	3	0
Cisco CSP	1	0
Cisco IOS	73	180
Cisco IOS-XE	32	72
Cisco IOS-XR	35	58
Cisco Networking	27	20
Cisco NX-OS	2	2
Cisco Unified Communication Manager	20	34
Cisco UCS	17	0
Cisco UCS C-Series	17	125
Cisco Wireless	18	28
Citrix NetScaler	10	17
F5 Big-IP	21	0
Juniper JunOS	2	0
NetApp	3	0

System Requirements

The "Datacenter Advanced Enrichment Policies" PowerPacks have the following prerequisites:

- The most recent version of the "Datacenter Advanced Enrichment Actions" PowerPack must be installed on your SL1 system.
- SL1 version 11.3.0 or higher.

Installing Datacenter Advanced Enrichment Policies PowerPacks

TIP: By default, installing a new version of a PowerPack overwrites all content from a previous version of that PowerPack that has already been installed on the target system. You can use the ***Enable Selective PowerPack Field Protection*** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. For more information, see the section on *Global Settings*.

To download and install the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page (Product Downloads > PowerPacks & SyncPacks) at the ScienceLogic Support Site.
2. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks).
3. Click the **[Actions]** button and choose *Import PowerPack*. The **Import PowerPack** dialog box appears.
4. Click **[Browse]** and navigate to the PowerPack file from step 1.
5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal displays a list of the PowerPack contents.
6. Click **[Install]**. The PowerPack is added to the **PowerPacks** page.

NOTE: If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPacks** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

Unsupported Configurations

The following configurations are not supported by the "Datacenter Advanced Enrichment Actions" PowerPack:

- Customer-created run book actions that build command lists to be executed by the "Enrichment: Util: Collect Enrichment Data" run book action are not supported without prior authorization from ScienceLogic.

- Modifications of any kind to the code supplied in the "Datacenter Advanced Enrichment Actions" PowerPack are not supported without prior authorization from ScienceLogic.

Chapter 2

Configuring Run Book Automation Policies

Overview

This chapter describes how to configure and use the automation policies in the "Datacenter Advanced Enrichment Policies" PowerPacks.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon ( ).
- To view a page containing all of the menu options, click the Advanced menu icon ( ).

This chapter covers the following topics:

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Prerequisites

Before you configure and use an automation policy from one of the "Datacenter Advanced Enrichment Policies" PowerPacks, you will need to make the following decisions:

- **Which set of commands you want to run on a monitored device when an event occurs**. There are over 350 run book actions in the "Datacenter Advanced Enrichment Actions" PowerPack that build a list of commands to execute on the monitored device; each run book action builds a different list. This set of actions includes all actions in the PowerPack that do not have the prefix "Enrichment: Util:".
- **What event criteria you want to use to determine when the run book actions will trigger, or the set of rules that an event must match before the automation is executed**. This can include matching only specific event policies, event severity, associated devices, and so on. For a description of all the options that are available in automation policies, see the ***Run Book Automation*** manual.
- **Where the output of the run book actions will be viewed by a user**. The output is always available in the **Event Actions Log** modal accessed on the **Events** page (⚠) or the **Event Console** (Events > Classic Events).

  Optionally, you can include a run book action in your automation policy to send the output of the automation to an additional location. Typically, the additional location is the ticket that was generated for the event in your ticketing system. If you want to configure an automation policy that sends the output of device-specific run book actions to a ticketing system, you must create or have access to the following additional content that is not supplied in the "Datacenter Advanced Enrichment Actions " PowerPack :

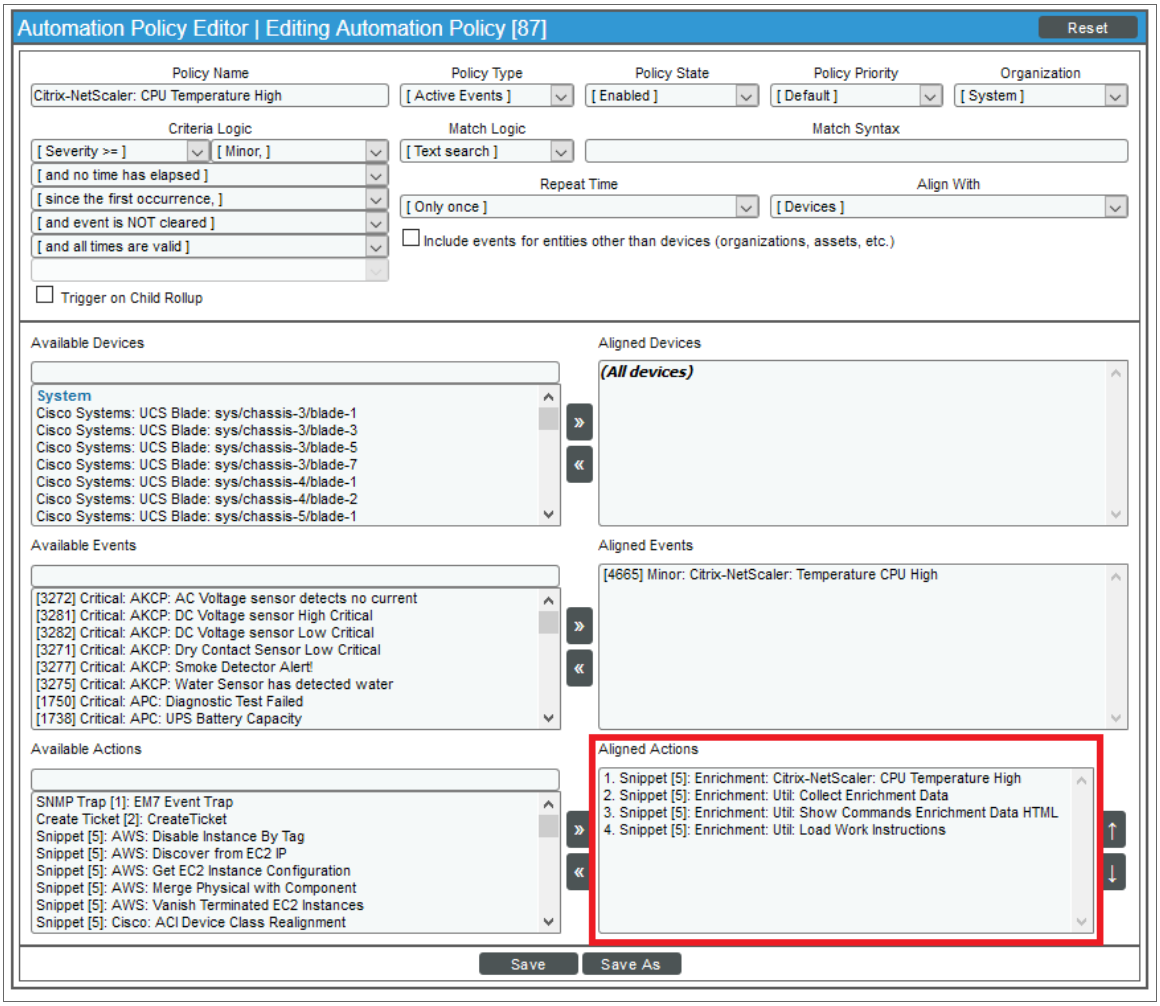
  - A *process*, either automated or manual, where SL1 events are associated with tickets. Examples of this process include:
    - A user clicking the life ring icon (🛟) in the ticket console to create a ticket in the SL1 ticketing system.
    - If your system has been configured so that the **Events** page (⚠) or the **Event Console** (Events > Classic Events) integrates with an external ticketing system, a user clicking the Actions button (⋮) and selecting *Create Ticket*, or clicking the life ring icon (🛟) to request a ticket in your external ticketing system.
    - An automation policy that is configured to automatically create tickets for events, either in SL1 or an external ticketing system.
  - A *run book action* that sends the output from the previous run book action to the ticketing system. This action should specify that the ticket associated with the triggering event will be updated with this information.

Customizing a Datacenter Advanced Enrichment Automation Policy

You can use the default automation policies in the "Datacenter Advanced Enrichment Policies" PowerPacks, or you can customize the policies as needed.

To customize an automation policy:

1. Go to the **Automation Policy Manager** page (Registry > Run Book > Automation).
2. Search for the Datacenter Advanced Enrichment automation policy you want to edit and click the wrench icon (🔧) for that policy . The **Automation Policy Editor** page appears:



3. Complete the following fields as needed:

   - ***Policy Name***. Type a new name for the automation policy to avoid overwriting the default policy.
   - ***Policy Type***. Select whether the automation policy will match events that are active, match when events are cleared, or run on a scheduled basis. Typically, you would select *Active Events* in this field. If you want your users to be able to initiate and run this policy on an event from the Event Console or Business Services viewer, select *Active Events/User Initiated* in this field., For more information, see "Creating an Automation Policy" in the ***Run Book Automation*** manual.

> **NOTE:** The *Active Events/User Initiated* policy type is available in SL1 version 10.1 and higher.

- ***Policy State***. Specifies whether the policy will be evaluated against the events in the system. If you want this policy to begin matching events immediately, select *Enabled*.
- ***Organization***. Select the organization that will use this policy. The automation policy will execute only for devices in the selected organization that match the other criteria in the policy. To configure a policy to execute for all devices in all organizations that match the other criteria in the policy, select *System*.
- ***Aligned Actions***. To create a valid automation policy that uses the run book actions from the "Datacenter Advanced Enrichment Actions" PowerPack, you must configure the ***Aligned Actions*** field to include multiple actions in a specific sequence. To add an action to the ***Aligned Actions*** field, select the action in the ***Available Actions*** field and click the right arrow (>>). To re-order the actions in the ***Aligned Actions*** field, select an action and use the up arrow or down arrow buttons on the right to change that action's position in the sequence.

  [Aligned Actions: Non-ticketing Option]

  If you are *not* configuring this automation policy to send the output of the run book actions to a ticketing system and users will view the output in the **Event Actions Log** modal accessed on the **Events** page (⚠) or the **Event Console** (Events > Classic Events), you must include four actions in the following sequence in the **Aligned Actions** field:

  i. An "Enrichment" run book action from the "Datacenter Advanced Enrichment Actions" PowerPack that builds a list of commands to execute on the monitored device. There are over 350 different actions of this type. This set of actions includes all actions in the "Datacenter Advanced Enrichment Actions" PowerPack that do not have the prefix "Enrichment: Util:". In most cases, this action will be a device-specifc "Enrichment" action.

  ii. The "Enrichment: Util: Collect Enrichment Data" run book action. This action executes the list of commands provided by the previous action and sends the output to the next run book action in the sequence of actions.

  iii. The "Enrichment: Util: Format Command Output as HTML" run book action. This action formats the output of the "Enrichment: Util: Collect Enrichment Data" run book action in HTML format.

  iv. The "Enrichment: Util: Load Work Instructions" run book action. If the library of work instructions included with the PowerPack contains a set of instructions for the event policy that triggered the event, the run book action will output that set of work instructions.

  [Aligned Actions: Ticketing Option]

  If you are configuring the automation policy to send the output of the run book actions to a ticketing system, you must include six actions in a specific sequence in the ***Aligned Actions*** field:

  i. An "Enrichment" run book action from the "Datacenter Advanced Enrichment Actions" PowerPack that builds a list of commands to execute on the monitored device. This set of actions includes all actions from the "Datacenter Advanced Enrichment Actions" PowerPack that do not have the prefix "Enrichment: Util". In most cases, this action will be a device-specific "Enrichment" action.

  ii. The "Enrichment: Util: Collect Enrichment Data" run book action. This action executes the list of commands provided by the previous action and sends the output to the next run book action in the sequence of actions.

iii. One of the following actions, which format the output of the "CMS: Util: Collect Enrichment Data" run book action:

- The "Enrichment: Util: Format Command Output as HTML" run book action. This action formats the output of the "Enrichment: Util: Collect Enrichment Data" run book action in HTML format.
- The "Enrichment: Util: Format Command Output as Plaintext" run book action. This action formats the output of the "Enrichment: Util: Collect Enrichment Data" run book action in plain-text format.

iv. A run book action that performs a request to add the output of the previous action as a work note in your ticketing system. This run book action is *not* supplied in the "Datacenter Advanced Enrichment Actions" PowerPack. See the ***Prerequisites*** section for more information about the requirements for this action.

v. The "Enrichment: Util: Load Work Instructions" run book action. If the library of work instructions included with the PowerPack contains a set of instructions for the event policy that triggered the event, the run book action will output that set of work instructions.

vi. A run book action that performs a request to add the output of the previous action as a work note in your ticketing system. This run book action should be the same run book action you added in the 4th position in this sequence of run book actions.

4. Optionally, supply values in the other fields on the **Automation Policy Editor** page to refine when the automation will trigger.

> **TIP:** If you are configuring the automation policy to send the output of the run book actions to a ticketing system, you should ensure that the process for associating a ticket with the SL1 event occurs before this automation policy triggers. Typically, you would use the "and ticket IS created" or "and external ticket IS created" options in the ***Criteria Logic*** fields.

5. Click **[Save]**.

Removing an Automation Policy from a PowerPack

After you have customized a policy from a "Datacenter Advanced Enrichment" PowerPack, you might want to remove that policy from that PowerPack to prevent your changes from being overwritten if you update the PowerPack later. If you have the license key with author's privileges for a PowerPack, or if you have owner/administrator privileges with your license key, you can remove content from a PowerPack.

> **TIP:** If you have version 105 or later of the "Datacenter Automation Utilities" PowerPack installed, you can use the "Automation Utilities: Remove Automation Policies from PowerPack" run book action to remove automation policies from a specific PowerPack.

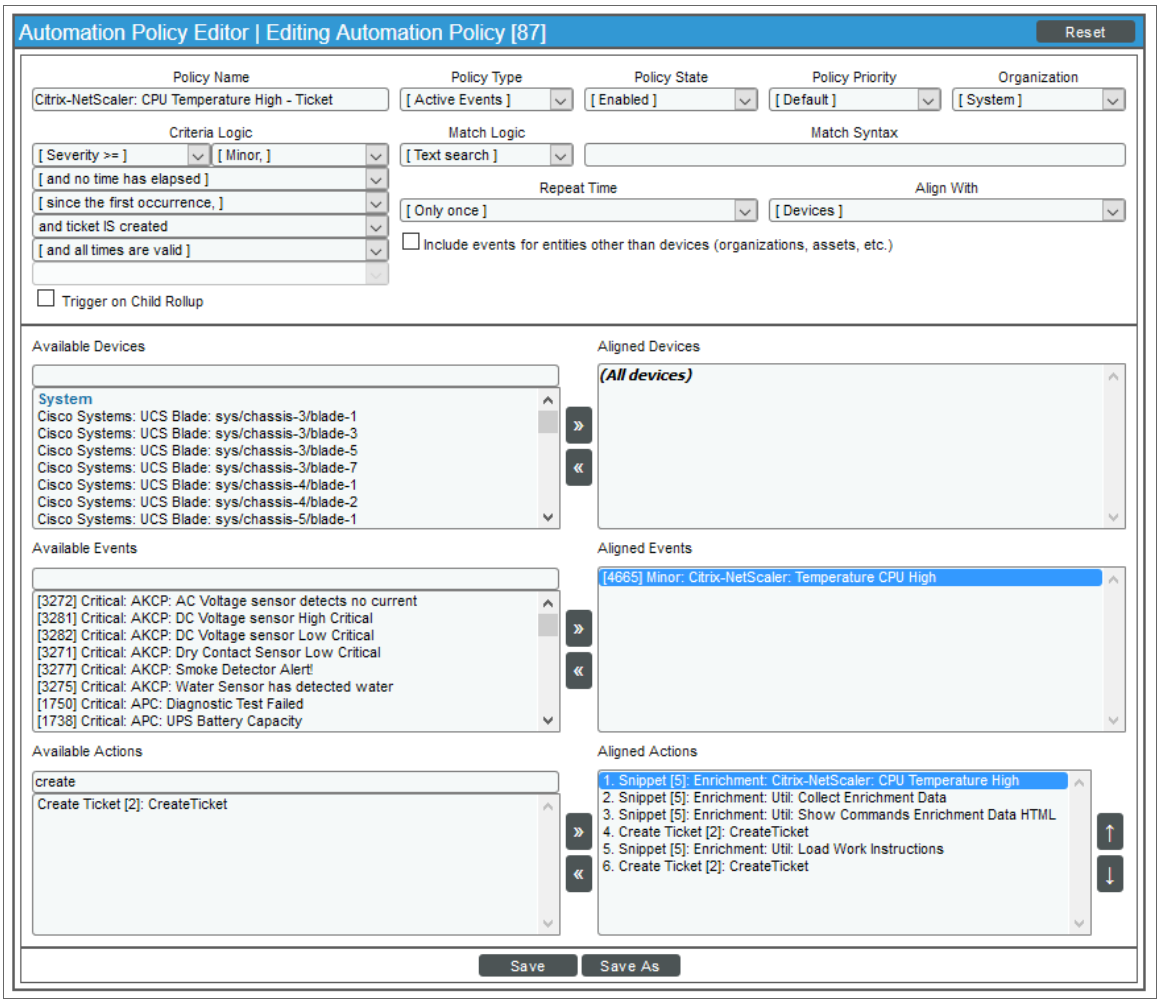
To remove content from a PowerPack:

1. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
2. Find the "Datacenter Advanced Enrichment" PowerPack that you want to edit. Click its wrench icon ( ).
3. In the **PowerPack Properties** page, in the Navbar on the left side, click **Run Book Policies**.
4. In the **Embedded Run Book Polices** pane, locate the policy you updated and click the garbage can icon ( ) for that policy. The policy will be removed from the PowerPack and will now appear in the bottom pane.

Example: Customizing an Automation Policy

This section contains an example of an automation policy that uses a customized automation policy from the "Datacenter Advanced Enrichment: Citrix NetScaler Policies" PowerPack along with a set of run book actions in the "Datacenter Advanced Enrichment Actions" PowerPack.

In this example, we customized a default automation policy from the "Datacenter Advanced Enrichment: Citrix NetScaler Policies" PowerPack to create a ticket in the SL1 ticketing system when the CPU temperature of a Citrix NetScaler device exceeds a threshold:

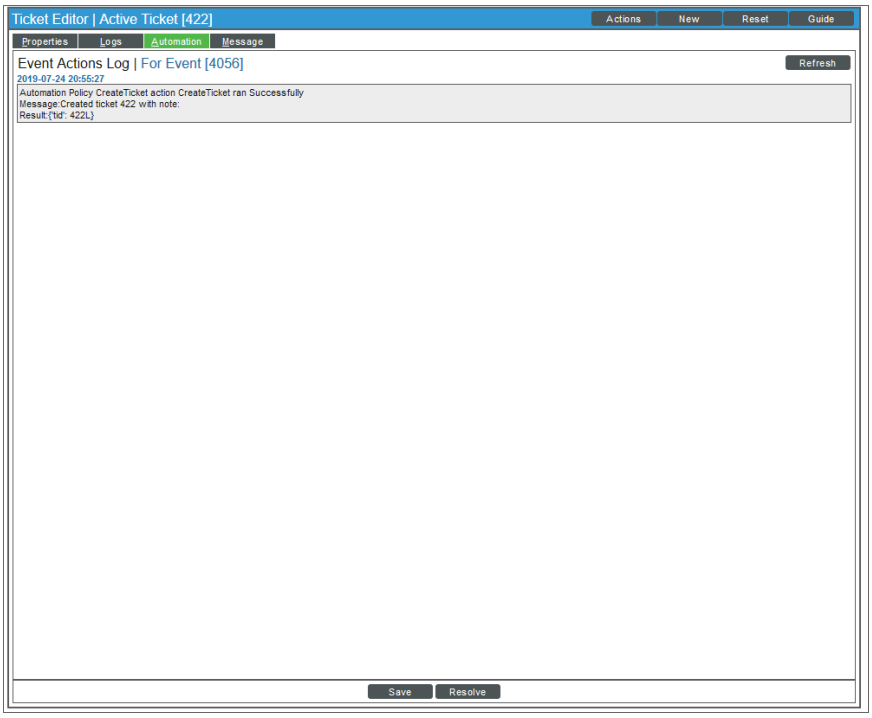


The customized automation policy uses the following settings:

- ***Policy Name***. We renamed the policy from "Citrix-NetScaler: CPU Temperature High" to "Citrix-NetScaler: CPU Temperature High - Ticket".
- ***Policy Type***. The policy is intended to run when an unhealthy event triggers, or is in an active state. *Active Events* is selected in this field.
- ***Policy State***. *Enabled* is selected in this field.
- ***Organization***. The policy is intended to execute for all devices in the system, regardless of organization, so *System* is selected in this field.
- ***Criteria Logic***. The output of the actions will be sent to the SL1 ticketing system. As a result, the policy is configured to execute immediately when a matching event triggers using these criteria: "Severity >= Minor, and no time has elapsed since the first occurrence, and ticket IS created, and all times are valid".
- ***Aligned Devices***. The policy is configured to trigger for all devices in the system.
- ***Aligned Events***. The actions selected for the policy collect diagnostic information about Citrix NetScaler device. As a result, the policy is configured to trigger only when the following event is triggered:
    - Citrix-NetScaler: CPU Temperature High
- ***Aligned Actions***. The output of the actions will be sent to the SL1 ticketing system, which uses the "Create Ticket" run book action, which is not included in the "Datacenter Advanced Enrichment Actions" PowerPack. As a result, the automation includes six actions in the following sequence:
    - Enrichment: Citrix-NetScaler: CPU Temperature High
    - Enrichment: Util: Collect Enrichment Data
    - Enrichment: Util: Format Command Output as HTML
    - Create Ticket
    - Enrichment: Util: Load Work Instructions
    - Create Ticket

When the CPU temperature of a Citrix NetScaler device exceeds a threshold, the SL1 ticketing system creates a ticket, which you can view on the SL1 **Tickets** page.

You can also view the results of running the automation by going to the **Events** page (⚠), clicking the Actions button (⋮), and selecting *View Automation Actions*. You can also go to the **Event Console** (Events > Classic Events) and click the View Notification Log icon (✉). The **Event Actions Log** modal appears:



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