

Symptoms and Alerts

Importance

Alerts notify operators when object state change, health problems, and performance degradation occur in the environment. Alerts are generated when a metric violates a defined threshold, signaling potential problems or issues on single hosts or across the entire fleet.

VCF Operations provides a comprehensive set of predefined alert definitions. You can also create custom alert definitions and symptom definitions to address specific monitoring needs.

Administrators must understand the underlying work mechanism of alert definitions and how to take actions on alerts.

Module Lessons

1. Alerts Introduction
2. Creating Alert Definition Components
3. Creating Custom Alert Definitions
4. Managing Alerts

Alerts Introduction



Learner Objectives

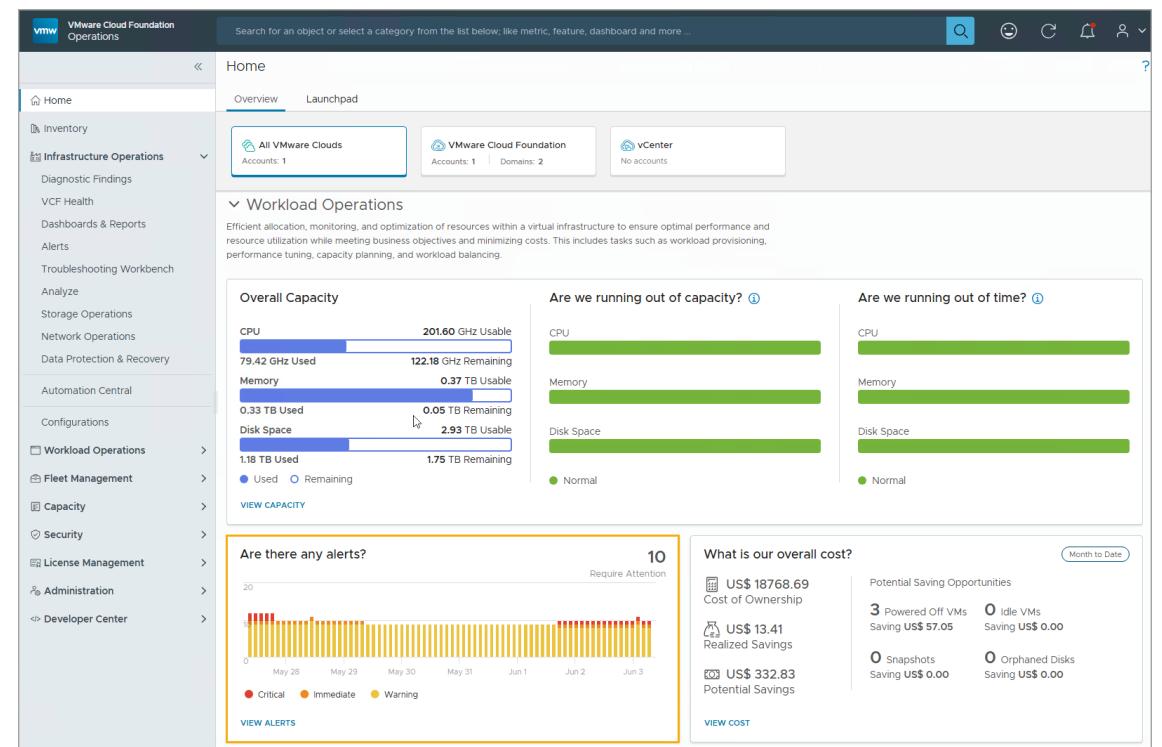
- Describe the purpose of using alerts
- Identify the components of an alert definition

Understanding Alerts

Alerts help you identify performance, capacity, and usage problems, and provide a root-cause analysis across single objects and the fleet.

The Alerts function provides the following benefits:

- Provides notifications for abnormal behaviors to help avoid incidents
- Focuses on the cure (remediation)
- Provides the starting point of a workflow for identifying problems



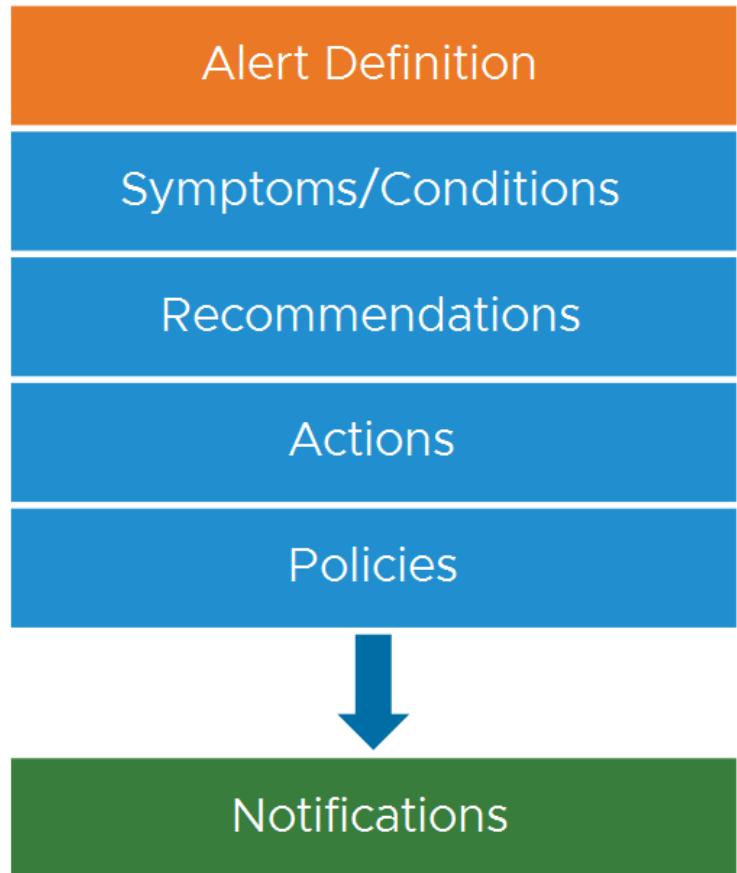
Alert Definitions and Alert Components

Alert definitions are a combination of elements that identify problem areas and generate alerts in VCF Operations.

An alert definition has the following components:

- One or more Symptoms that trigger the alert
- Zero or more Recommendations that might resolve the alert
- Zero or more Actions
- Policies that are enabled for an alert

A notification sends an alert to external applications through a plug-in such as the standard email plug-in.



Understanding Symptoms

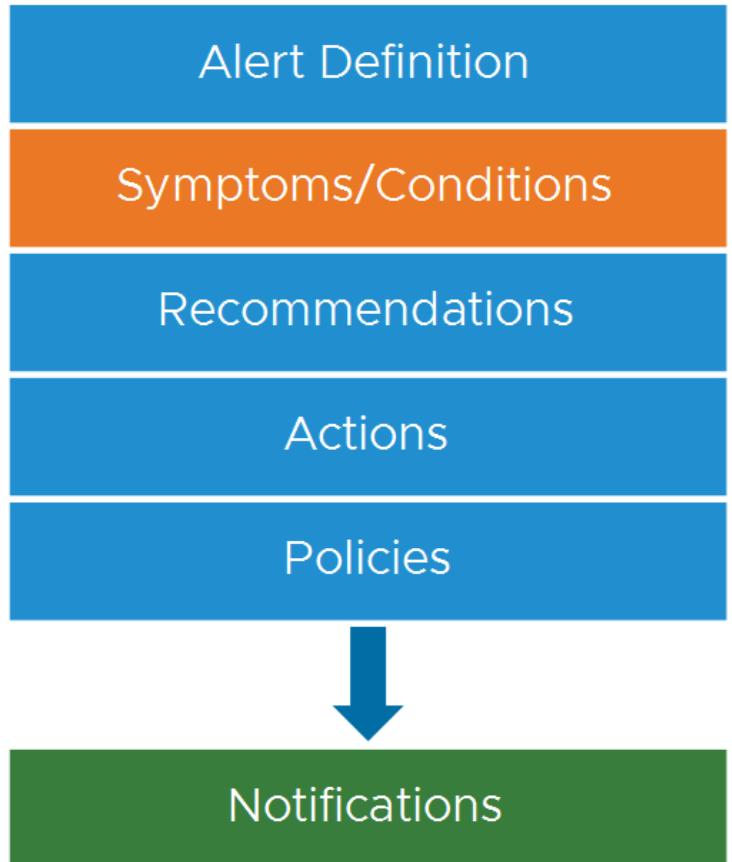
A symptom is a simple condition test that is performed on metrics, properties, message events, fault events, and metric events. A symptom normally indicates problems in your environment.

A symptom can apply to any object type. For example, a host, virtual machine, data store, virtual switch, or application.

The following two faulty conditions are examples of possible symptoms:

- Virtual machine high-ready time on each vCPU
- Host disconnected from vCenter

A symptom is the most basic building block of an alert definition. An alert definition includes a minimum of one symptom. If the condition in the symptom is met, the symptom gets triggered, which eventually triggers the alert.



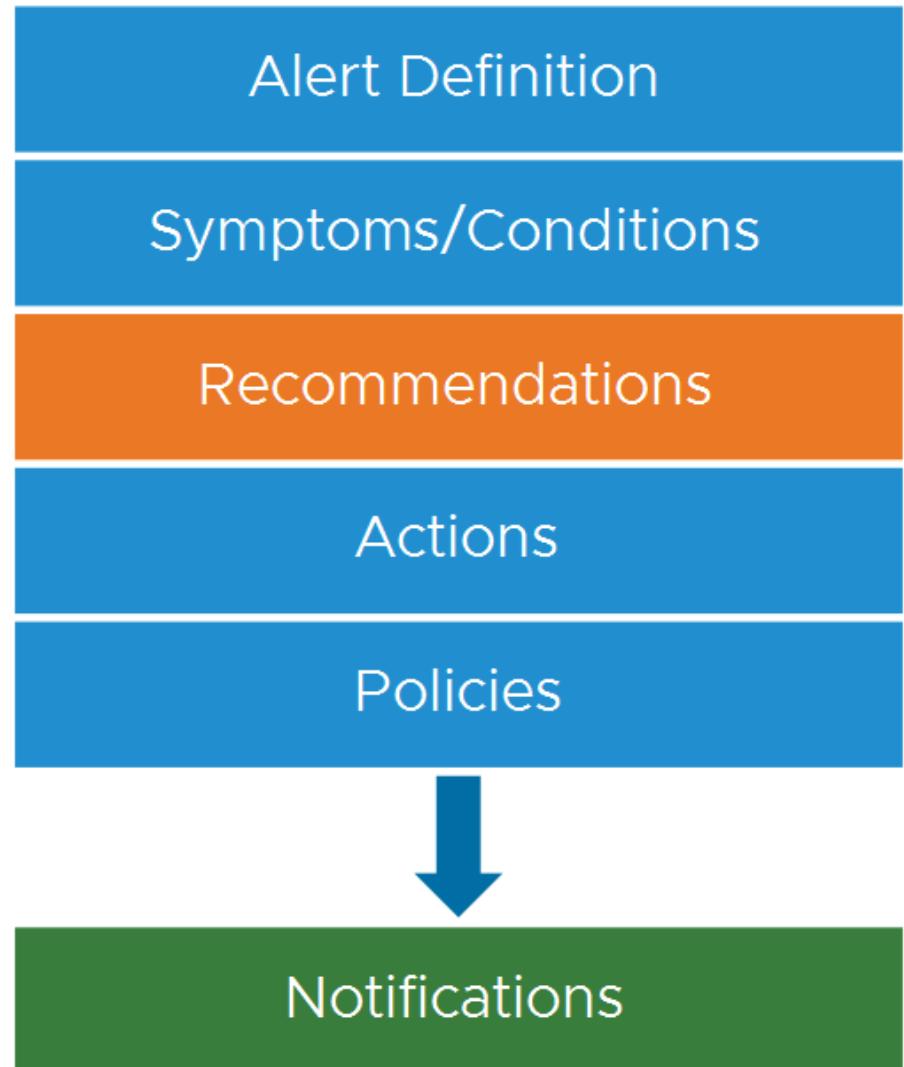
Understanding Recommendations

A recommendation is a probable solution for resolving the problem that triggered the alert.

A recommendation can include the following information:

- Best practices
- Vendor recommendations
- Links to troubleshooting resources

You can use the built-in recommendations in VCF Operations or create your custom recommendations.



Understanding Actions

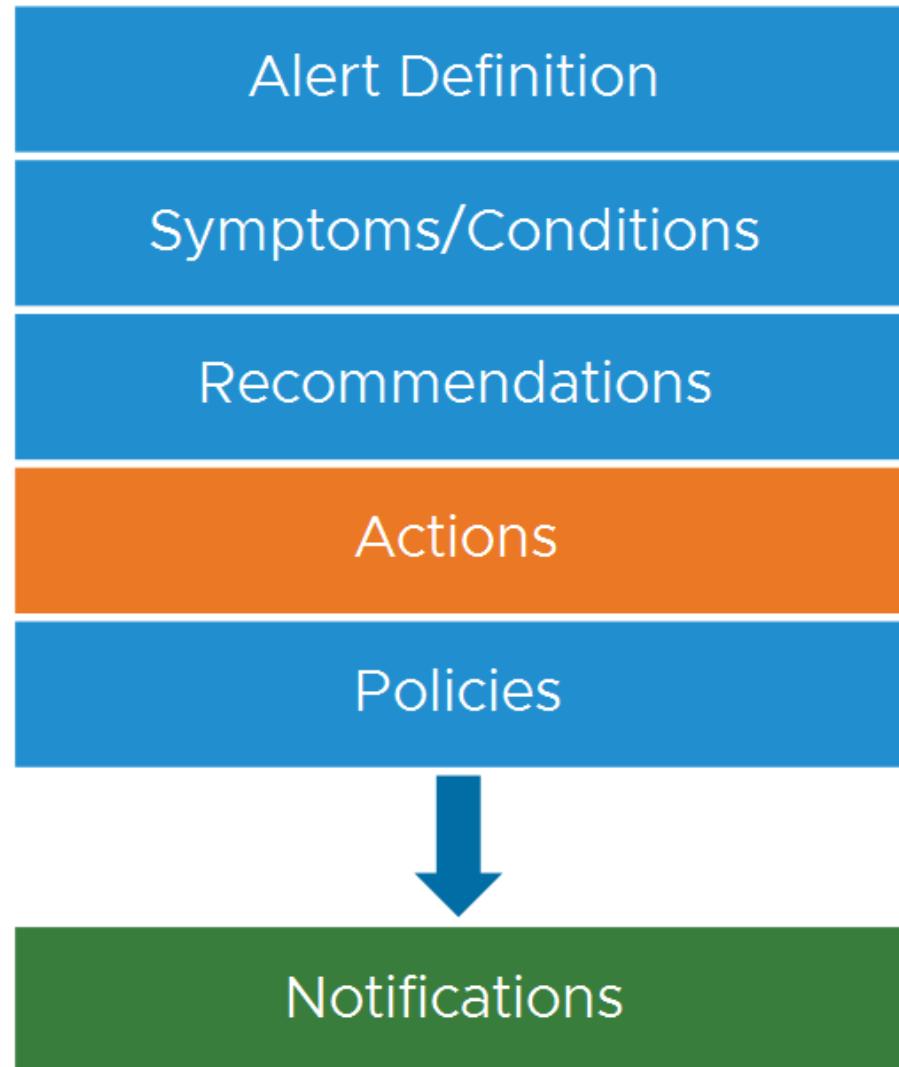
An action provides a single-click method (automated) for fixing the problem that you are trying to resolve.

Actions are associated with recommendations, and actions are optional to an alert definition. A recommendation can include one or more actions.

Actions are from the following sources:

- Built in the product
- Installed solutions

The possible actions include read actions and update actions.



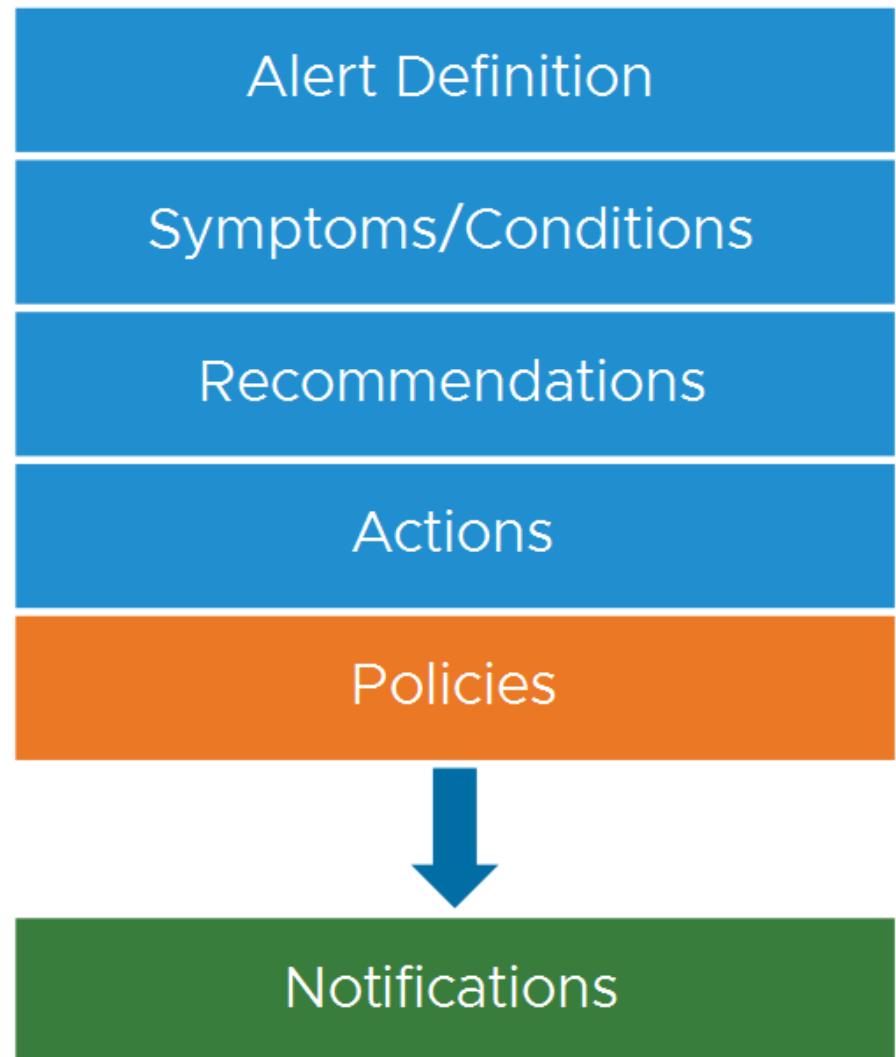
Understanding Policies

A policy in VCF Operations is a set of rules that define how information about objects are collected, displayed, and analyzed.

Each policy can inherit settings from another policy. Then you can customize and override policy settings to support the service-level agreements and business priorities established for your environment.

A policy includes the following settings:

- Metrics or properties for object types such as VM, host, or data store
- Symptom and alert definitions
- Threshold definitions for factors such as workload, time remaining, and capacity remaining



Understanding Notifications

When alerts are generated in VCF Operations, the alerts appear in various places in the VCF Operations console such as the **Alerts** page and the object's **Summary** tab.

You can configure VCF Operations to send triggered alerts to an external alert notification system with a notification.

You connect VCF Operations to the external alert notification system by configuring an outbound alert plug-in. For example, you can send alerts by using email.

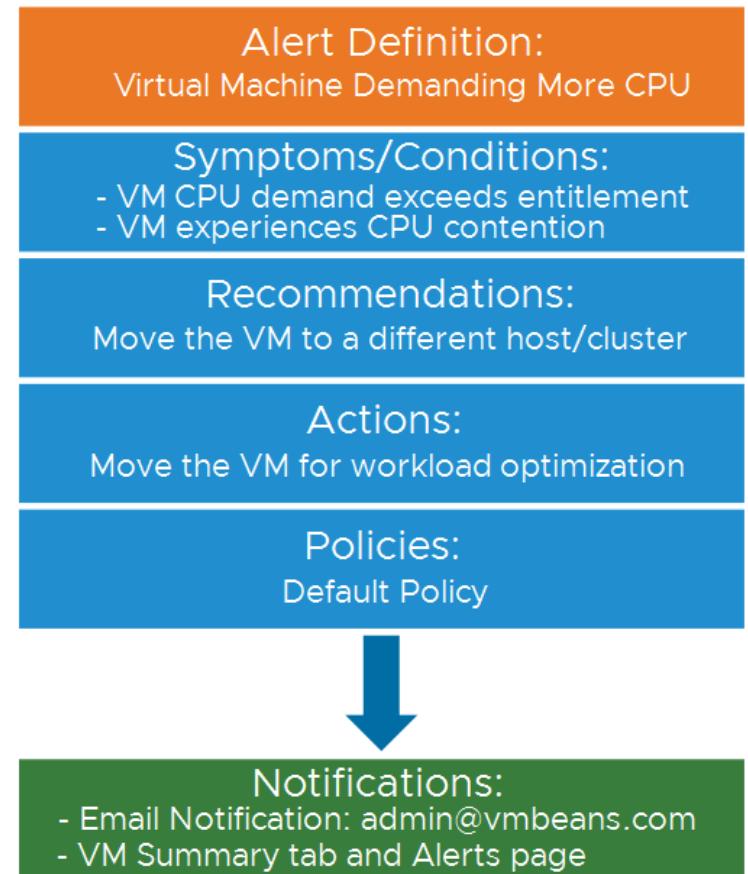


Alert Definition Example

An alert definition provides useful information for resolving problems.

The following example provides details about an alert definition:

- **Name:** Virtual machine in a DRS cluster demands more CPU than its entitlement.
- **Description:** Virtual machine in a DRS cluster demands more CPU than its entitlement.
- **Symptoms:**
 - The virtual machine's CPU demand exceeds its entitlement.
 - The virtual machine experiences CPU contention.
- **Recommendations:** Move the virtual machine to a different host or cluster.
- **Actions:** Move the VM for workload optimization.



Comparing Alerts, Dashboards, and Reports

Alerts, views, dashboards, and reports can all provide data and insights. You must be able to differentiate their distinctive nature and primary use cases to make the best use of these functions.

	Alerts	Views/Dashboards	Reports
Nature	Reactive	Proactive	Passive
Suitability	Exceptions	Exceptions/Big Picture/Details Analysis	Big Picture/Nonurgent Exceptions
Primary Use Cases	Initial Troubleshooting	Further Troubleshooting/Monitoring	Data Export and Sharing
Time/Urgency	Urgent/Important	Regular (daily, SOP)	Nonurgent/Optional/Reports on a set schedule
Roles	Operations Team	Operations Team/Architect	IT Management/Auditor

Review of Learner Objectives

- Describe the purpose of using alerts
- Identify the components of an alert definition

Creating Alert Definition Components

Learner Objectives

- Create static symptom definitions
- Configure different threshold types for symptoms
- Configure recommendations and actions for an alert

Viewing Alert Components in VCF Operations

To view the three core alert components, **Symptom Definitions**, **Recommendations**, and **Actions**, navigate to **Infrastructure Operations > Configurations**.

The screenshot shows the VMware Cloud Foundation Operations interface. The left sidebar is titled "Infrastructure Operations" and includes sections for Diagnostic Findings, VCF Health, Dashboards & Reports, Alerts, Troubleshooting Workbench, Analyze, Storage Operations, Network Operations, Data Protection & Recovery, Automation Central, Workload Operations, Fleet Management, Capacity, Security, License Management, Administration, and Developer Center. The main content area is titled "Configurations" and contains a search bar. Under the "Policies" section, there are "Policy Definition" and "Policy Assignment" cards. Under the "Alerts" section, there are six cards: "Alert Definitions", "Symptom Definitions" (which is highlighted with a yellow border), "Recommendations", "Actions" (which is also highlighted with a yellow border), "Notifications", "Outbound Settings", and "Payload Templates". Under the "Super Metrics" section, there is a "Super Metrics" card.

Viewing Symptom Definitions

When creating an alert definition, you must associate one or more symptom definitions.

You can use the built-in symptom definitions or create custom ones. To view all symptom definitions in your VCF Operations console, navigate to **Infrastructure Operations > Configurations > Symptom Definitions**. The following types of symptom definitions are available:

- **Metric / Property**
- **Message Event**
- **Fault**
- **Logs**

Symptom Definitions											
Configurations / Symptom Definitions											
<input type="button" value="Metric / Property"/> <input type="button" value="Message Event"/> <input type="button" value="Fault"/> <input type="button" value="Logs"/>		Type here to apply filters									
<input type="button" value="ADD"/> ...											
<input type="checkbox"/>	Name	Criticality	Object Type	Metric Name	Operator	Value	Defined By	Last Modified	Modified By		
<input type="checkbox"/>	: (DEP) At least one host in the...		Cluster Com...	CPU Demand Highest Hos...	is greater than o...	95	vCenter	5/10/25 1:11 ...	admin		
<input type="checkbox"/>	: (DEP) At least one host in the...		Cluster Com...	Memory Demand Highest ...	is greater than o...	95	vCenter	5/10/25 1:11 ...	admin		
<input type="checkbox"/>	: (DEP) Cluster CPU "demand" ...		Cluster Com...	CPU Demand Workload (%)	is greater than o...	80	vCenter	5/10/25 1:11 ...	admin		
<input type="checkbox"/>	: (DEP) Cluster CPU contention...		Cluster Com...	CPU Contention (%)	is greater than	15	vCenter	5/10/25 1:11 ...	admin		
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<input type="checkbox"/>	: (DEP) Cluster DRS settings ar...		Cluster Com...	Summary DRS Tunable	is	true	vCenter	5/10/25 1:11 ...	admin		
<input type="checkbox"/>	: (DEP) Cluster memory "dema..."		Cluster Com...	Memory Demand Worklo...	is greater than o...	80	vCenter	5/10/25 1:11 ...	admin		
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<input type="checkbox"/>	: (DEP) Cluster memory worklo...		Cluster Com...	Memory Workload (%)	is greater than	80	vCenter	5/10/25 1:11 ...	admin		
<input type="checkbox"/>	: (DEP) CPU Demand is greate...		Pod	CPU Demand (MHz)	is greater than	CPU CPU limi...	vCenter	5/10/25 1:11 ...	admin		
<input type="checkbox"/>	: (DEP) CPU Demand is greate...		Virtual Machi...	CPU Demand (MHz)	is greater than	CPU CPU limi...	vCenter	5/10/25 1:11 ...	admin		
<input type="checkbox"/>	: (DEP) Disk command latency ...		Datastore	Datastore Total Latency (...	is greater than	15	vCenter	5/10/25 1:11 ...	admin		
<input type="checkbox"/>	: (DEP) DRS enabled		Cluster Com...	Cluster Configuration DRS...	is	true	vCenter	5/10/25 1:11 ...	admin		
1 - 50 of 842 items										< 1 2 3 4 5 ... 17 >	

Understanding Symptom Definition Types

Symptom definitions are categorized into the following types:

- **Metric/Property:**
 - Metric symptoms are based on the operational or performance values collected from the target objects in your environment.
 - Property symptoms are based on the configuration properties collected from the target objects.
- **Message Event:** Symptoms are based on the events received as messages from a component of VCF Operations or from an external monitored system through the monitored system's REST API.
- **Fault:** Symptoms are based on events in the monitored systems that affect the availability of objects in your environment.
- **Logs:** Symptoms are based on log data coming from VCF Operations for logs in the monitored systems that affect the availability of objects in your environment.

Creating Symptom Definitions

To add a new custom symptom definition, click the symptom definition type to verify that you are on the correct symptom definition type tab and click **ADD**.

When you create a symptom definition:

1. Select the base object type.
2. Select the symptom type.
3. Configure the symptom definition.

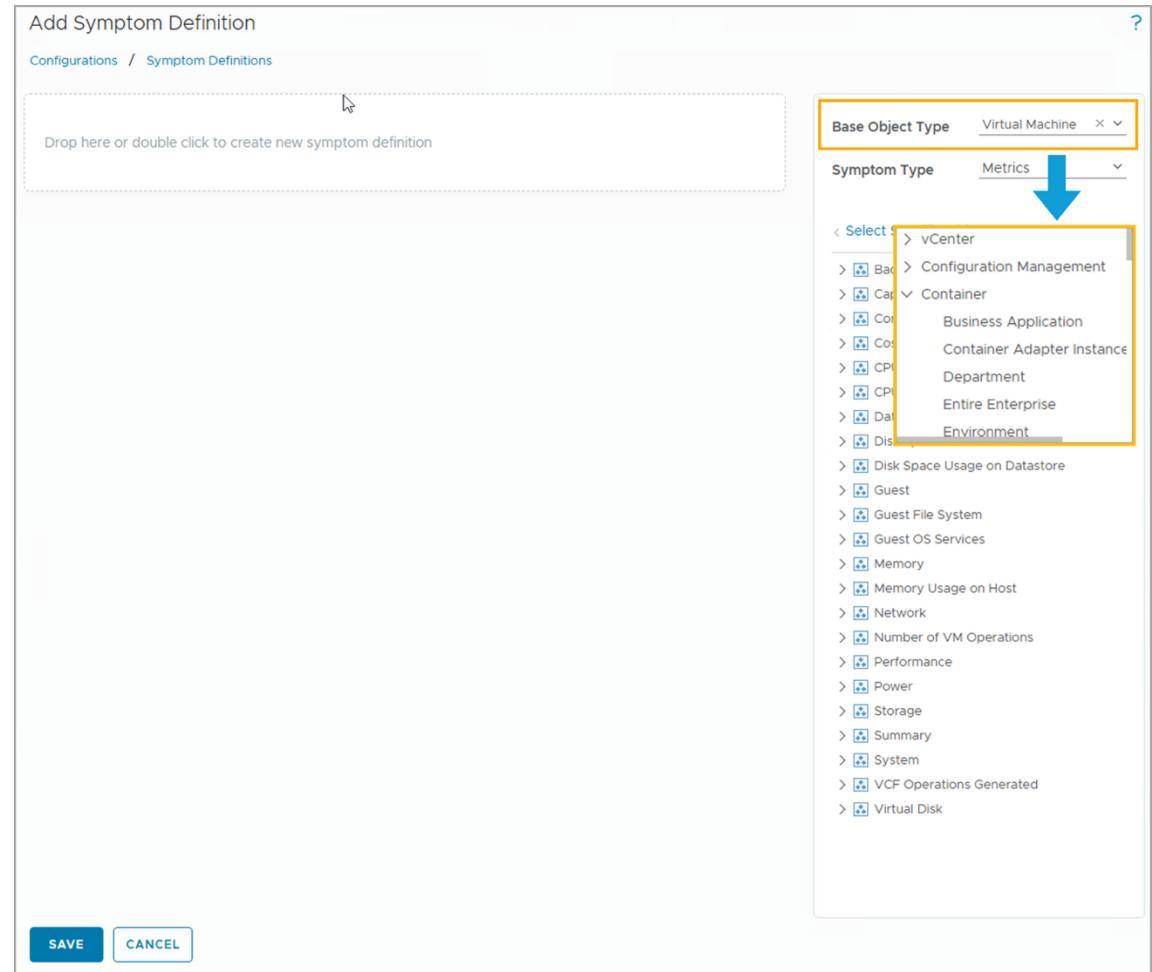
Symptom Definitions										
Configurations / Symptom Definitions										
Metric / Property	Message Event	Fault	Logs							
ADD	...			Type here to apply filters						
<input type="checkbox"/>	Name 	Criticality	Object Type	Metric Name	Operator	Value	Defined By	Last Modified	Modified By	
<input type="checkbox"/>	: (DEP) At least one host in the...		Cluster Com...	CPU Demand Highest Hos...	is greater than o...	95	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) At least one host in the...		Cluster Com...	Memory Demand Highest ...	is greater than o...	95	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster CPU "demand" ...		Cluster Com...	CPU Demand Workload (%)	is greater than o...	80	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster CPU contention...		Cluster Com...	CPU Contention (%)	is greater than	15	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster CPU contention...		Cluster Com...	CPU Contention (%)	is greater than	10	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster CPU workload ...		Cluster Com...	CPU Contention (%)	is greater than	5	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster CPU workload ...		Cluster Com...	CPU Workload (%)	is greater than o...	95	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster CPU workload ...		Cluster Com...	CPU Workload (%)	is greater than	90	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster CPU workload ...		Cluster Com...	CPU Workload (%)	is greater than	80	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster DRS settings ar...		Cluster Com...	Summary DRS Tunable	is	true	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster memory "dema..."		Cluster Com...	Memory Demand Worklo...	is greater than o...	80	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster memory conte...		Cluster Com...	Memory Contention (%)	is greater than	10	vCenter	5/10/25 1:11 ...	admin	
<input checked="" type="checkbox"/>	: (DEP) Cluster memory conte...		Cluster Com...	Memory Contention (%)	is greater than	5	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster memory worklo...		Cluster Com...	Memory Workload (%)	is greater than o...	95	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster memory worklo...		Cluster Com...	Memory Workload (%)	is greater than	90	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Cluster memory worklo...		Cluster Com...	Memory Workload (%)	is greater than	80	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) CPU Demand is greate...		Pod	CPU Demand (MHz)	is greater than	CPU CPU limi...	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) CPU Demand is greate...		Virtual Machi...	CPU Demand (MHz)	is greater than	CPU CPU limi...	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) Disk command latency ...		Datastore	Datastore Total Latency (...)	is greater than	15	vCenter	5/10/25 1:11 ...	admin	
<input type="checkbox"/>	: (DEP) DRS enabled		Cluster Com...	Cluster Configuration DRS...	is	true	vCenter	5/10/25 1:11 ...	admin	
1 - 50 of 842 items										
< 1 2 3 4 5 ... 17 >										

Selecting the Base Object Types

The base object type is the object type against which the symptom is evaluated.

When you add a symptom definition, you select the object for which the symptom is evaluated. A base object type can represent single objects, such as virtual machines, or represent a broader scope, such as clusters. In this case, the objects being evaluated are virtual machines.

Adapters and containers organize and display the object types. You can also search for an object type.



Selecting Metrics

After selecting the base object type, you can drag metrics from the expanded metric list to the new symptom definition area.

Add Symptom Definition

Configurations / Symptom Definitions

Virtual Machine : CPU|Demand (%)

Name: CPU Demand > 60%

If Metric: > Condition: 60 Value: trigger: Warning Criticality:

> Advanced Settings

Drop here or double click to create new symptom definition

SAVE CANCEL

Base Object Type: Virtual Machine

Symptom Type: Metrics

Select Specific Object: Q Search

Metrics list:

- > Badge
- > Capacity Analytics Generated
- > Configuration
- > Cost
- > CPU
 - Demand (%)
 - Co-stop (%)
 - Contention (%)
 - Demand (MHz)
 - Effective limit (MHz)
 - Highest vCPU Ready of all instances (%)
 - Highest vCPU Usage of all instances (%)
 - Net Run (%)
 - Other Wait (%)
 - Peak Other Wait within collection cycle ...
 - Peak vCPU Co-Stop within collection cycl...
 - Peak vCPU Overlap within collection cycl...
 - Peak vCPU Ready within collection cycle ...
 - Provisioned vCPU(s) (vCPUs)
 - Ready (%)
 - Run (ms)
 - Swap wait (%)
 - Total Capacity (MHz)

Understanding Threshold Types

A threshold marks the boundary between normal and abnormal behavior for a metric. You need to configure the threshold for each added symptom.

You can choose the following types of thresholds:

- Static Threshold
- Dynamic Threshold
- Compare

The screenshot shows the 'Add Symptom Definition' dialog box. On the left, there's a configuration panel for a 'Virtual Machine : CPU|Demand (%)' symptom. It includes fields for 'Name' (set to 'CPU Demand > 60%'), 'If Metric' (set to '> 60'), and 'trigger' (set to 'Warning'). A dropdown menu for 'Static Threshold' is open, showing 'Static Threshold', 'Dynamic Threshold', and 'Compare' as options. On the right, a sidebar lists 'Base Object Type' as 'Virtual Machine' and 'Symptom Type' as 'Metrics'. Below these, a tree view shows categories like 'Badge', 'Capacity Analytics Generated', 'Configuration', 'Cost', and 'CPU'. Under 'CPU', various metrics are listed, including 'Demand (%)' which is currently selected. At the bottom of the dialog are 'SAVE' and 'CANCEL' buttons.

Configuring a Static Threshold

A static threshold compares the currently collected metric value against the fixed value that you configure in the symptom definition.

For a symptom with a static threshold, you must configure the following settings:

- Symptom Name
- Condition
- Value
- Criticality

For example, you can configure a static metric symptom. When the virtual machine CPU workload is greater than 70, a critical symptom is triggered. You can select the criticality of the triggered symptom.

Add Symptom Definition

Configurations / Symptom Definitions

Virtual Machine : CPU|Demand (%) Static Threshold

Name: VM High CPU Demand

If Metric: > 80 trigger: Critical

> Advanced Settings

Drop here or double click to create new symptom definition

SAVE CANCEL

Base Object Type: Virtual Machine

Symptom Type: Metrics

Select Specific Object: Search

CPU Metrics:

- Co-stop (%)
- Contention (%)
- Demand (MHz)
- Demand (%)**
- Effective limit (MHz)
- Highest vCPU Ready of all in...
- Highest vCPU Usage of all in...
- Net Run (%)
- Other Wait (%)
- Peak Other Wait within colle...
- Peak vCPU Co-Stop within c...
- Peak vCPU Overlap within c...
- Peak vCPU Ready within coll...
- Provisioned vCPU(s) (vCPUs)
- Ready (%)
- Run (ms)
- Swap wait (%)
- Total Capacity (MHz)

Configuring Multiple Symptom Definitions

If you add multiple symptoms to a symptom definition, you must configure the threshold setting for all the symptoms.

Add Symptom Definition

Configurations / Symptom Definitions

Virtual Machine : CPU|Demand (%)

Name VM High CPU Demand

If Metric > 70 trigger Critical

Advanced Settings

Virtual Machine : Memory|Consumed (%)

Name VM High Memory Consumption

If Metric > 80 trigger Critical

Advanced Settings

Virtual Machine : Storage|Read Latency (ms)

Name Storage High Read Latency

If Metric Numeric Value trigger Info

Advanced Settings

SAVE CANCEL

Base Object Type Virtual Machine

Symptom Type Metrics

Select Specific Object

- Capacity Analytics Generated
- Configuration
- CPU
- CPU Utilization for Resources
- Datastore
- Disk Space
- Disk Space Usage on Datastore
- Guest
- Guest File System
- Guest OS Services
- Memory
- Memory Usage on Host
- Network
- Number of VM Operations
- Performance
- Power
- Storage
 - Read Latency (ms)
 - Write Latency (ms)
- Summary
- Super Metrics
- System
- VCF Operations Generated
- Virtual Disk

Configuring a Dynamic Threshold

A dynamic threshold is based on VCF Operations Dynamic Threshold calculation values, which are calculated by the analytics components daily. The triggering value is determined through analytics.

The following values define the relationship of the current value to the trend range:

- **Above Threshold:** If the current value is above the trend range, the symptom is triggered.
- **Below Threshold:** If the current value is below the trend range, the symptom is triggered.
- **Abnormal:** If the current value is either above or below the trend range, the symptom is triggered.

Add Symptom Definition

Configurations / Symptom Definitions

Virtual Machine : CPUDemand (%) Dynamic Threshold ×

Name: VM CPU Demand Above Trend

If Metric is: Above Threshold Condition trigger: Immediate Criticality

> Advanced Settings

Drop here or double click to create new symptom definition

Base Object Type: Virtual Machine

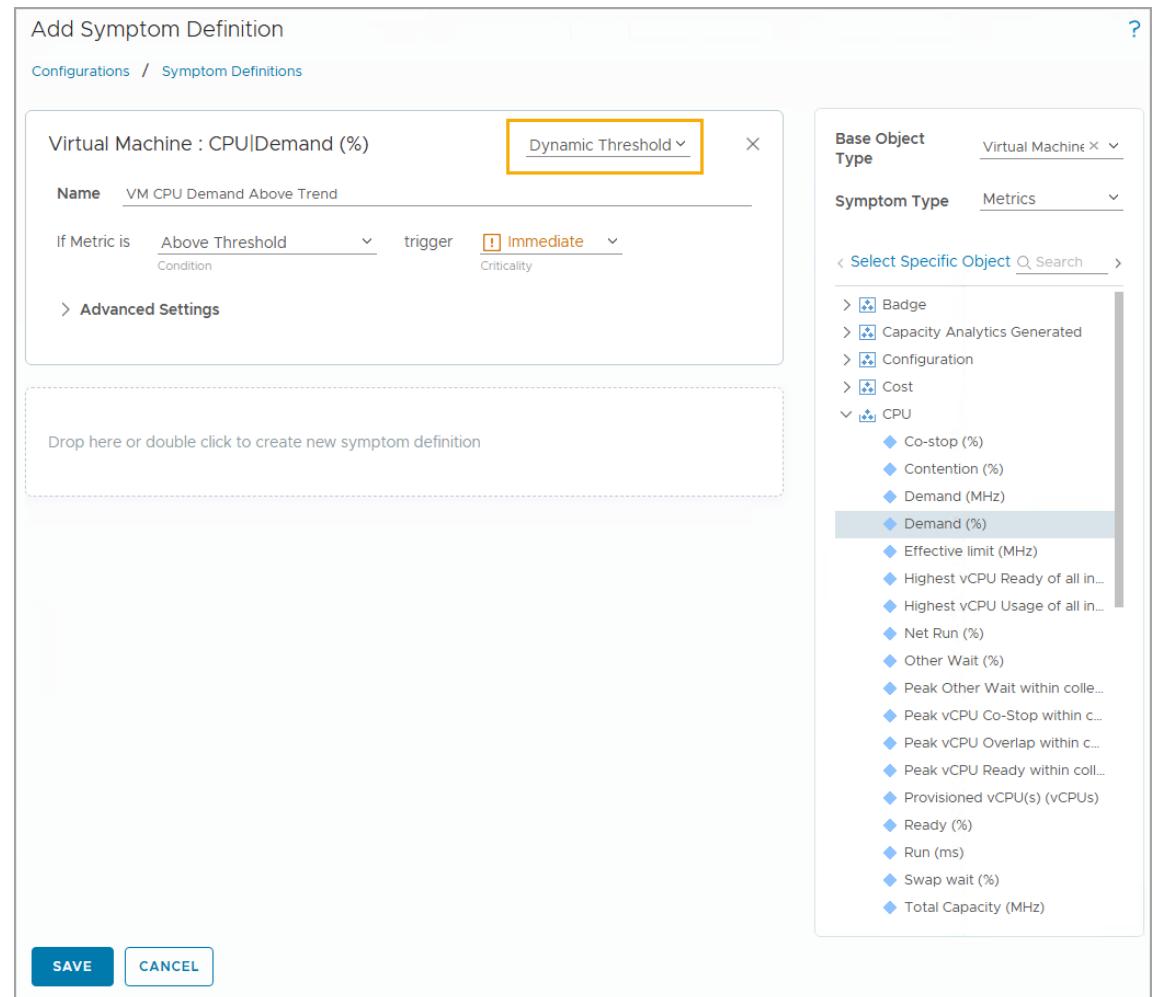
Symptom Type: Metrics

Select Specific Object Search

CPU

- Co-stop (%)
- Contention (%)
- Demand (MHz)
- Demand (%)** (selected)
- Effective limit (MHz)
- Highest vCPU Ready of all in...
- Highest vCPU Usage of all in...
- Net Run (%)
- Other Wait (%)
- Peak Other Wait within colle...
- Peak vCPU Co-Stop within c...
- Peak vCPU Overlap within c...
- Peak vCPU Ready within coll...
- Provisioned vCPU(s) (vCPUs)
- Ready (%)
- Run (ms)
- Swap wait (%)
- Total Capacity (MHz)

SAVE CANCEL



Configuring a Compare Threshold

A compare threshold is based on the comparison of two metrics.

Example comparisons that you can evaluate using the greater than symbol (>) include:

- CPU Demand > CPU Entitlement
- Memory Demand > Memory Use

Add Symptom Definition

Configurations / Symptom Definitions

Virtual Machine : CPU|Demand (MHz)

Name: VM CPU Demand Higher Than Effective Limit

If Metric is $>$ Condition: CPU|Effective limit (MHz)

trigger: Warning

Criticality: Warning

Advanced Settings

Drop here or double click to create new symptom definition

SAVE CANCEL

Base Object Type: Virtual Machine

Symptom Type: Metrics

Select Specific Object: Search

Available Metrics:

- Badge
- Capacity Analytics Generated
- Configuration
- Cost
- CPU
 - Demand (MHz)
 - Demand (%)
 - Effective limit (MHz)
 - Highest vCPU Ready of all in...
 - Highest vCPU Usage of all in...
 - Net Run (%)
 - Other Wait (%)
 - Peak Other Wait within colle...
 - Peak vCPU Co-Stop within c...
 - Peak vCPU Overlap within c...
 - Peak vCPU Ready within coll...
 - Provisioned vCPU(s) (vCPUs)
 - Ready (%)
 - Run (ms)
 - Swap wait (%)
 - Total Capacity (MHz)

Configuring Symptom Wait and Cancel Cycles

For each symptom, you can click **Advanced** to show the following additional configurations:

- **Wait cycle:** The test condition must remain true for a fixed number of polling cycles before the symptom is triggered.
- **Cancel cycle:** The symptom is canceled after the test condition is false for a fixed number of polling cycles.

Add Symptom Definition

Configurations / Symptom Definitions

Virtual Machine : CPU|Demand (MHz) Compare X

Name VM CPU Demand Higher Than Effective Limit

If Metric is > Condition CPU|Effective limit (MHz) trigger Warning Criticality

Advanced Settings

Wait Cycle: 3 Cancel Cycle: 3

Evaluate on instanced metrics

Drop instances to exclude

Drop here or double click to create new symptom definition

SAVE CANCEL

Base Object Type Virtual Machine

Symptom Type Metrics

Select Specific Object Search >

Badge

Capacity Analytics Generated

Configuration

Cost

CPU

- Co-stop (%)
- Contention (%)
- Demand (MHz)
- Demand (%)
- Effective limit (MHz) **(selected)**
- Highest vCPU Ready of all in...
- Highest vCPU Usage of all in...
- Net Run (%)
- Other Wait (%)
- Peak Other Wait within colle...
- Peak vCPU Co-Stop within c...
- Peak vCPU Overlap within c...
- Peak vCPU Ready within coll...
- Provisioned vCPU(s) (vCPUs)
- Ready (%)
- Run (ms)
- Swap wait (%)
- Total Capacity (MHz)

Viewing and Creating Recommendations

A recommendation can be a user-defined text. A recommendation can also include HTML links to the external resources such as knowledge base articles.

To view all recommendations in your VCF Operations console, navigate to **Infrastructure Operations > Configurations > Recommendations**.

The recommendation list displays all predefined and custom-built recommendations. To add a new custom recommendation, click **ADD**.

A recommendation can include an optional action.

The screenshot shows a 'Create New Recommendation' dialog box. At the top, it says 'Create New Recommendation' and 'Configurations / Recommendations'. Below that, a placeholder text reads 'Add a description and select an action to your new recommendation.' A 'Description' field contains the text 'Modify the CPU Limit for this virtual machine'. An 'Action (Optional)' section is expanded, showing 'Adapter Type' set to 'vCenter' and 'Action' set to 'Set CPU Count for VM Power Off Allow'. At the bottom, there are 'SAVE' and 'CANCEL' buttons.

Viewing the Inbuilt Actions

The Actions overview is a list of actions available in your environment that can be added to alert recommendations.

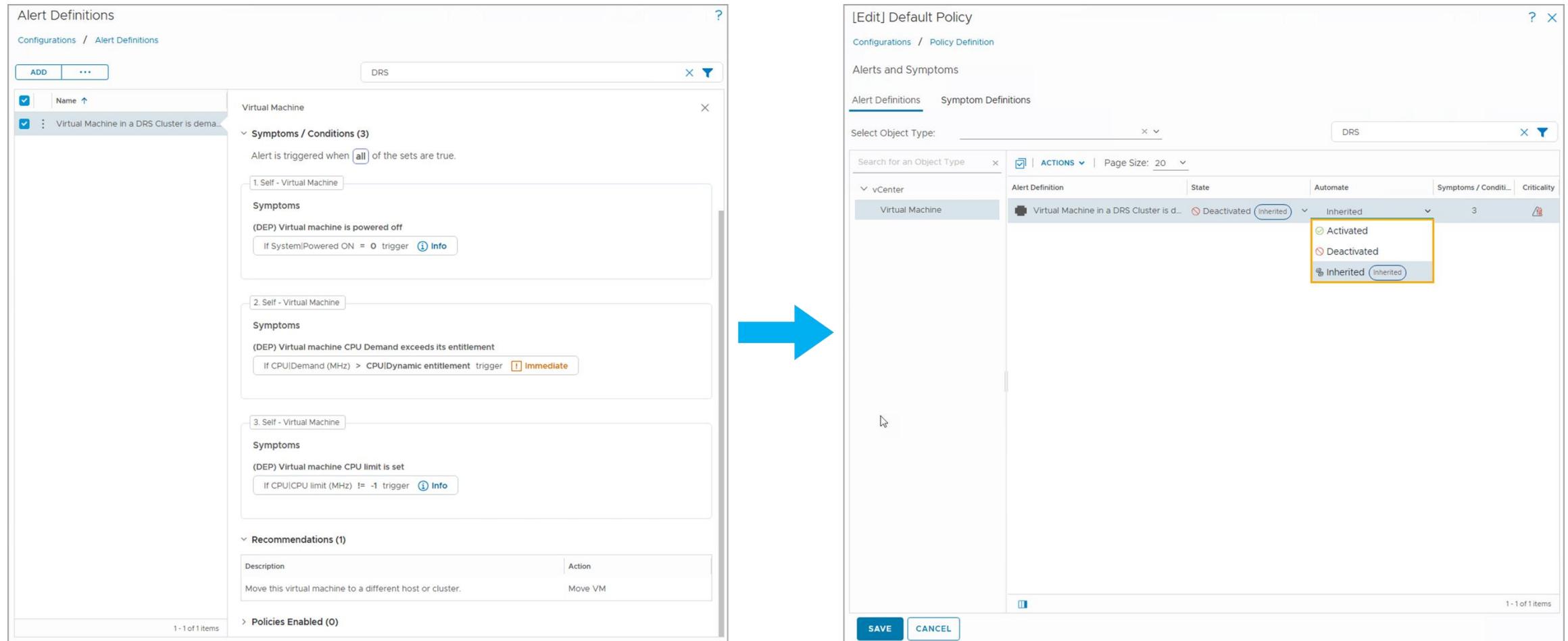
To view all the actions in your VCF Operations console, navigate to **Infrastructure Operations > Configurations > Actions**.

The number of times an action has been assigned to a recommendation is recorded in the Recommendations column.

Action Name	Action Type	Adapter Type	Resource Adapter Type	Associated Object Types	Recommendations
Set DRS Automation	update	vCenter	vCenter	Cluster Compute Resource	3
Set Memory Resources for VM	update	vCenter	vCenter	Virtual Machine, Host System, Cl...	3
Set CPU Count for VM	update	vCenter	vCenter	Virtual Machine, Host System, Cl...	3
Set CPU Resources for VM	update	vCenter	vCenter	Virtual Machine, Host System, Cl...	2
Delete Unused Snapshots for VM	update	vCenter	vCenter	Virtual Machine, Host System, Cl...	1
Set Memory for VM	update	vCenter	vCenter	Virtual Machine, Host System, Cl...	1
Power Off VM	update	vCenter	vCenter	Virtual Machine, Host System, Cl...	1
Delete Unused Snapshots for Da...	update	vCenter	vCenter	Datastore, Host System, Cluster ...	1
Move VM	update	vCenter	vCenter	Virtual Machine	1
Optimize Container	update	vCenter	vCenter	Custom Datacenter, Datacenter	1
Configuring Horizon Tomcat plug...	update	OS and Application Monitoring	vCenter	Virtual Machine, Endpoint	0
Power On VM	update	vCenter	vCenter	Virtual Machine, Host System, Cl...	0
Configuring HTTP Remote Check...	update	OS and Application Monitoring	vCenter	Virtual Machine, Endpoint	0
Configuring Ping Check plugin	update	OS and Application Monitoring	vCenter	Virtual Machine, Endpoint	0
Configuring Java plugin	update	OS and Application Monitoring	vCenter	Virtual Machine, Endpoint	0
Download Bootstrap Context	update	OS and Application Monitoring	OS and Application ...	OS and Application Monitoring A...	0
Configuring VeloCloud Gateway ...	update	OS and Application Monitoring	vCenter	Virtual Machine, Endpoint	0
Delete Powered Off VM	update	vCenter	vCenter	Virtual Machine, Host System, Cl...	0
Configuring MySQL plugin	update	OS and Application Monitoring	vCenter	Virtual Machine, Endpoint	0
Configuring Custom Script plugin	update	OS and Application Monitoring	vCenter	Virtual Machine, Endpoint	0

Automation Action Framework

You can configure actions to be triggered from alert recommendations automatically. As they are disabled by default, you must enable the action in the object's associated policy.



The image displays two screenshots of the VMware vSphere Web Client interface, illustrating the process of enabling automated actions for alert recommendations.

Left Screen: Alert Definitions

This screen shows the configuration of an alert definition for "Virtual Machine" under the "DRS" cluster. The alert triggers when a virtual machine is powered off, exceeds its CPU entitlement, or has a CPU limit set. Each trigger condition includes an "Info" button for more details. A "Recommendations" section suggests moving the virtual machine to a different host or cluster, with an "Action" button to execute it.

Right Screen: [Edit] Default Policy

This screen shows the "Default Policy" for "Virtual Machine". It lists the three alert definitions created on the left. For each, the "Automate" column is set to "Inherited". The "Actions" column contains three options: "Activated" (highlighted with a yellow border), "Deactivated", and "Inherited".

Action	State	Automate	Symptoms / Conditions	Criticality
Virtual Machine in a DRS Cluster is d...	Deactivated	Inherited	Activated	3
Virtual Machine in a DRS Cluster is d...	Deactivated	Inherited	Deactivated	3
Virtual Machine in a DRS Cluster is d...	Inherited	Inherited	Inherited	3

Lab: Creating Custom Symptoms

Create and test symptom definitions:

1. Prepare for Event and Log Collection
2. Create a Symptom Definition to Check for Medium CPU Demand of a VM
3. Create a Symptom Definition to Check for High CPU Demand of a VM
4. Create a Symptom Definition to Check for High CPU Demand of a Host System
5. Enable Custom Symptoms in the Policy
6. Test the Symptom Definitions

Review of Learner Objectives

- Create static symptom definitions
- Configure different threshold types for symptoms
- Configure recommendations and actions for an alert

Creating Custom Alert Definitions



Learner Objectives

- Configure a custom alert using the Create Alert Definition workflow
- Add symptoms, conditions, and recommendations to an alert definition
- Create notifications for a custom alert definition

Viewing Alert Definitions

The Alert Definitions page lists all the alert definitions configured for your environment. To view alert definitions, navigate to **Infrastructure Operations > Configurations > Alert Definitions**.

The screenshot shows the VMware Cloud Foundation Operations interface. The left sidebar includes sections for Home, Inventory, Infrastructure Operations (Diagnostic Findings, VCF Health, Dashboards & Reports, Alerts, Troubleshooting Workbench, Analyze, Storage Operations, Network Operations, Data Protection & Recovery), Automation Central, and Configurations (Workload Operations, Fleet Management, Capacity, Security, License Management, Administration, Developer Center). The main content area is titled 'Configurations' and contains sections for Policies (Policy Definition, Policy Assignment), Alerts (Alert Definitions, Symptom Definitions, Notifications, Outbound Settings), Super Metrics, Logical Groupings (Custom Groups, Custom Datacenters), and a vCenter Client section. The 'Alert Definitions' section is highlighted with a yellow box and a blue arrow points to it. The table in this section has the following columns: Name, Adapter Type, Object, Alert Type, Alert Subtype, Criticality, Impact, Defined By, Last Modified, and Modified By. The table lists numerous alert definitions, such as '(DEP) Application Efficiency is degrad.', '(DEP) Application Health is degrad.', '(DEP) Application Risk is elevated', etc., with details like Container, Busin., Application, Performance, Efficiency, Health, Risk, and NSX.

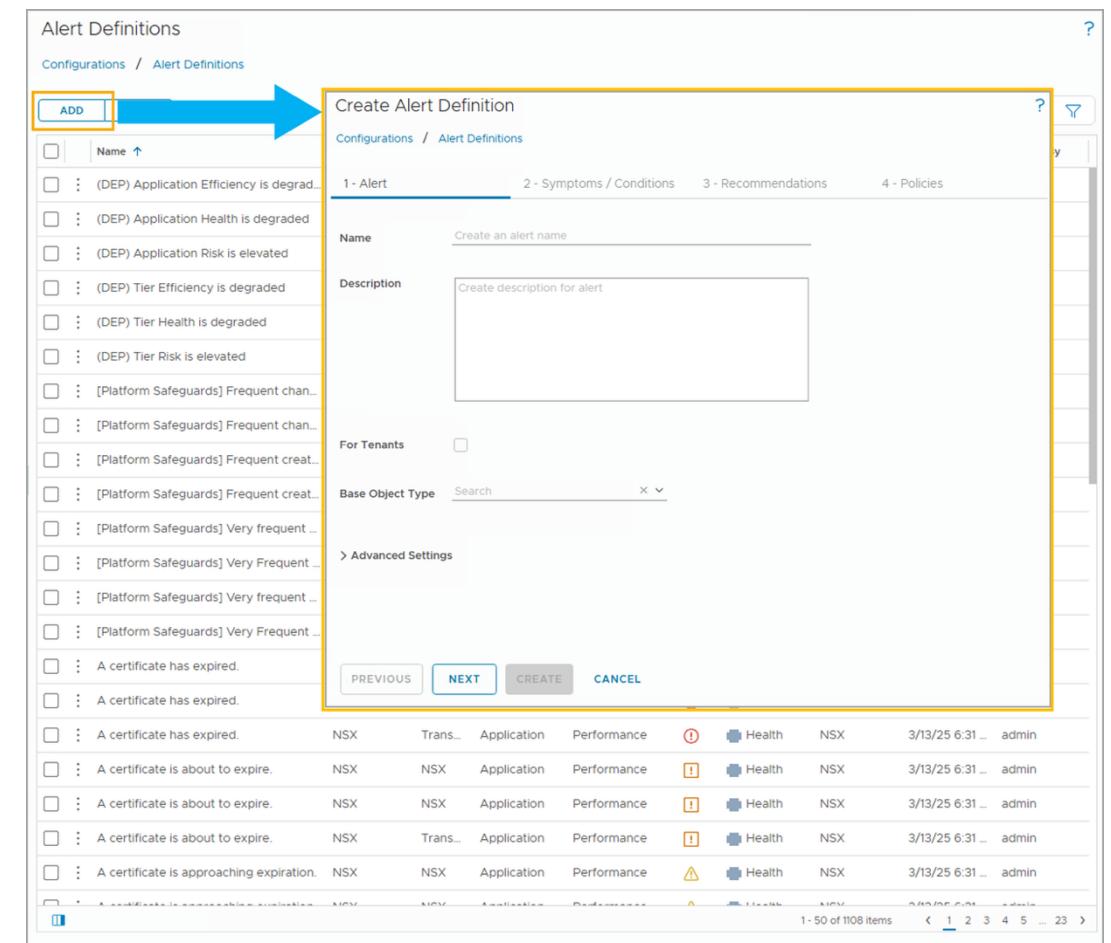
Name	Adapter Type	Object	Alert Type	Alert Subtype	Criticality	Impact	Defined By	Last Modified	Modified By
(DEP) Application Efficiency is degrad.	Container	Busin.	Application	Performance	⚠️	Efficiency	Container	5/10/25 109...	admin
(DEP) Application Health is degrad.	Container	Busin.	Application	Performance	⚠️	Health	Container	5/10/25 109...	admin
(DEP) Application Risk is elevated	Container	Busin.	Application	Performance	⚠️	Risk	Container	5/10/25 109...	admin
(DEP) Tier Efficiency is degraded	Container	Tier	Application	Performance	⚠️	Efficiency	Container	5/10/25 109...	admin
(DEP) Tier Risk is degraded	Container	Tier	Application	Performance	⚠️	Health	Container	5/10/25 109...	admin
(DEP) Tier Risk is elevated	Container	Tier	Application	Performance	⚠️	Risk	Container	5/10/25 109...	admin
[Platform Safeguards] Frequent cr...	VCF Oper.	VCF	Administrative	Performance	⚠️	Risk	VCF Oper.	5/10/25 109...	admin
[Platform Safeguards] Frequent cr...	VCF Oper.	VCF	Administrative	Performance	⚠️	Risk	VCF Oper.	5/10/25 109...	admin
[Platform Safeguards] Frequent cr...	VCF Oper.	VCF	Administrative	Performance	⚠️	Risk	VCF Oper.	5/10/25 109...	admin
[Platform Safeguards] Frequent cr...	VCF Oper.	VCF	Administrative	Performance	⚠️	Risk	VCF Oper.	5/10/25 109...	admin
[Platform Safeguards] Very Freq...	VCF Oper.	VCF	Administrative	Performance	⚠️	Risk	VCF Oper.	5/10/25 109...	admin
[Platform Safeguards] Very Freq...	VCF Oper.	VCF	Administrative	Performance	⚠️	Risk	VCF Oper.	5/10/25 109...	admin
[Platform Safeguards] Very Freq...	VCF Oper.	VCF	Administrative	Performance	⚠️	Risk	VCF Oper.	5/10/25 109...	admin
[Platform Safeguards] Very Freq...	VCF Oper.	VCF	Administrative	Performance	⚠️	Risk	VCF Oper.	5/10/25 109...	admin
A certificate has expired.	NSX	NSX	Application	Performance	🔴	Health	NSX	5/10/25 112...	admin
A certificate has expired.	NSX	NSX	Application	Performance	🔴	Health	NSX	5/10/25 112...	admin
A certificate has expired.	NSX	Trans...	Application	Performance	🔴	Health	NSX	5/10/25 112...	admin
A certificate is about to expire.	NSX	NSX	Application	Performance	🟡	Health	NSX	5/10/25 112...	admin
A certificate is about to expire.	NSX	NSX	Application	Performance	🟡	Health	NSX	5/10/25 112...	admin
A certificate is approaching expira...	NSX	NSX	Application	Performance	🟡	Health	NSX	5/10/25 112...	admin

Alert Definition Creation Workflow

The alert definition creation process includes adding symptoms that trigger an alert and recommendations that help resolve the alert. To add a new alert definition, click **ADD**.

To create an alert definition, you must complete the following tasks in the Alert Definition Creation wizard and VCF Operations console:

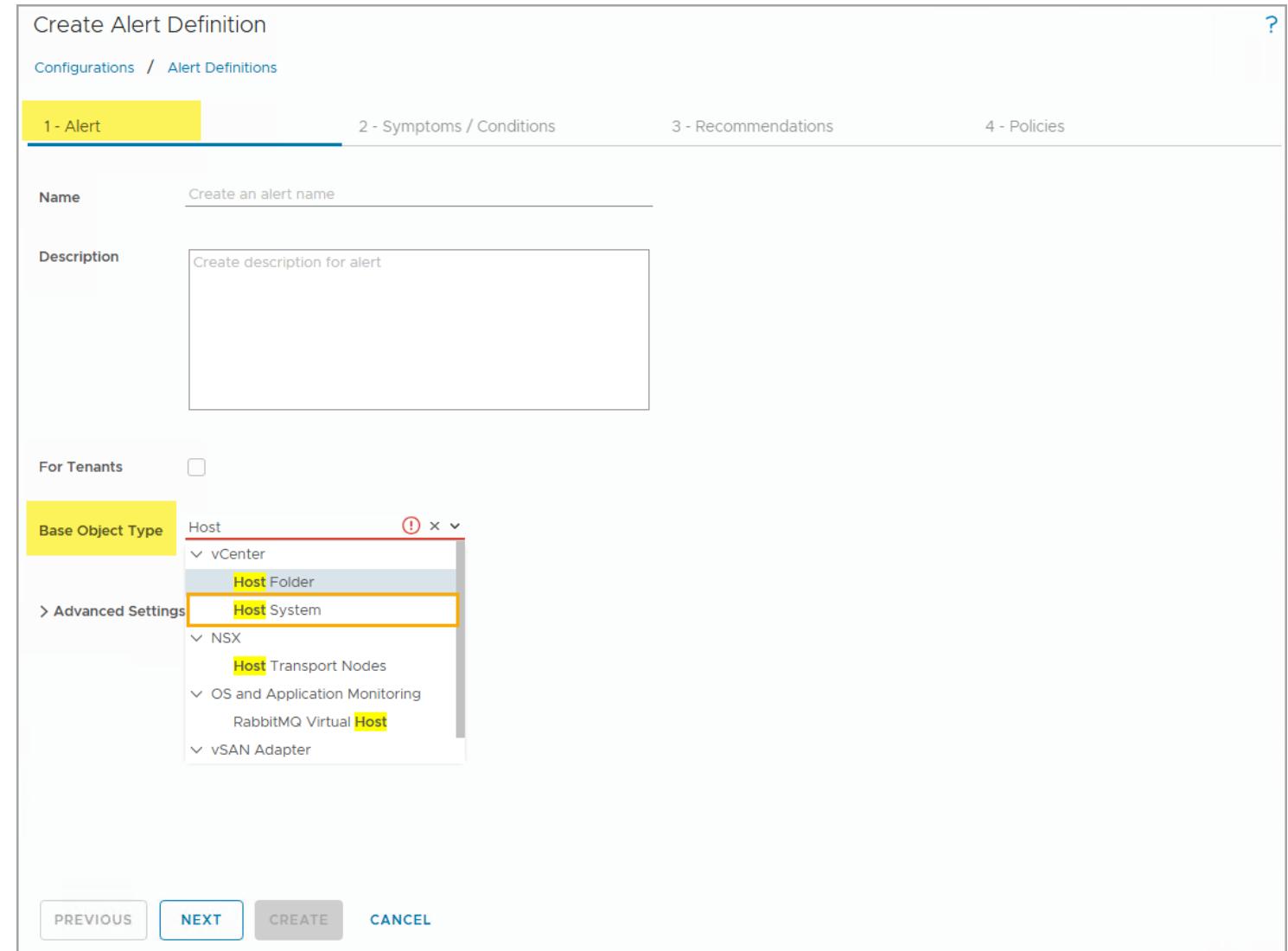
1. Configure an alert name, description, base object type, and advanced settings.
2. Add or create one or more symptom definitions.
3. Add or create one or more recommendations.
4. Specify the policies where the alert is used.
5. Add notifications (completed from **Infrastructure Operations > Configurations > Notifications**).



Selecting the Base Objective Type

The base object is the object around which the alert definition is created. In the example, the base object type is Host System.

The base object types for the alert definition and the symptom definitions need not match. The base object types must be related in the inventory tree.



Advanced Settings: Selecting the Impact of the Alert

To reveal additional Alert Definition settings, you can click **Advanced** to expand more settings.

You use the **Impact** setting to specify the badge with which you associate the alert. The following settings are available:

- **Health:** Alert requires immediate attention.
- **Risk:** Alert must be addressed soon after it is triggered, either in days or weeks.
- **Efficiency:** Alert must be addressed in the long term to optimize your environment.

Create Alert Definition Host System ?

Configurations / Alert Definitions

1 - Alert 2 - Symptoms / Conditions 3 - Recommendations 4 - Policies

Name

Description

For Tenants

Base Object Type Host System x v

Advanced Settings

Impact Health

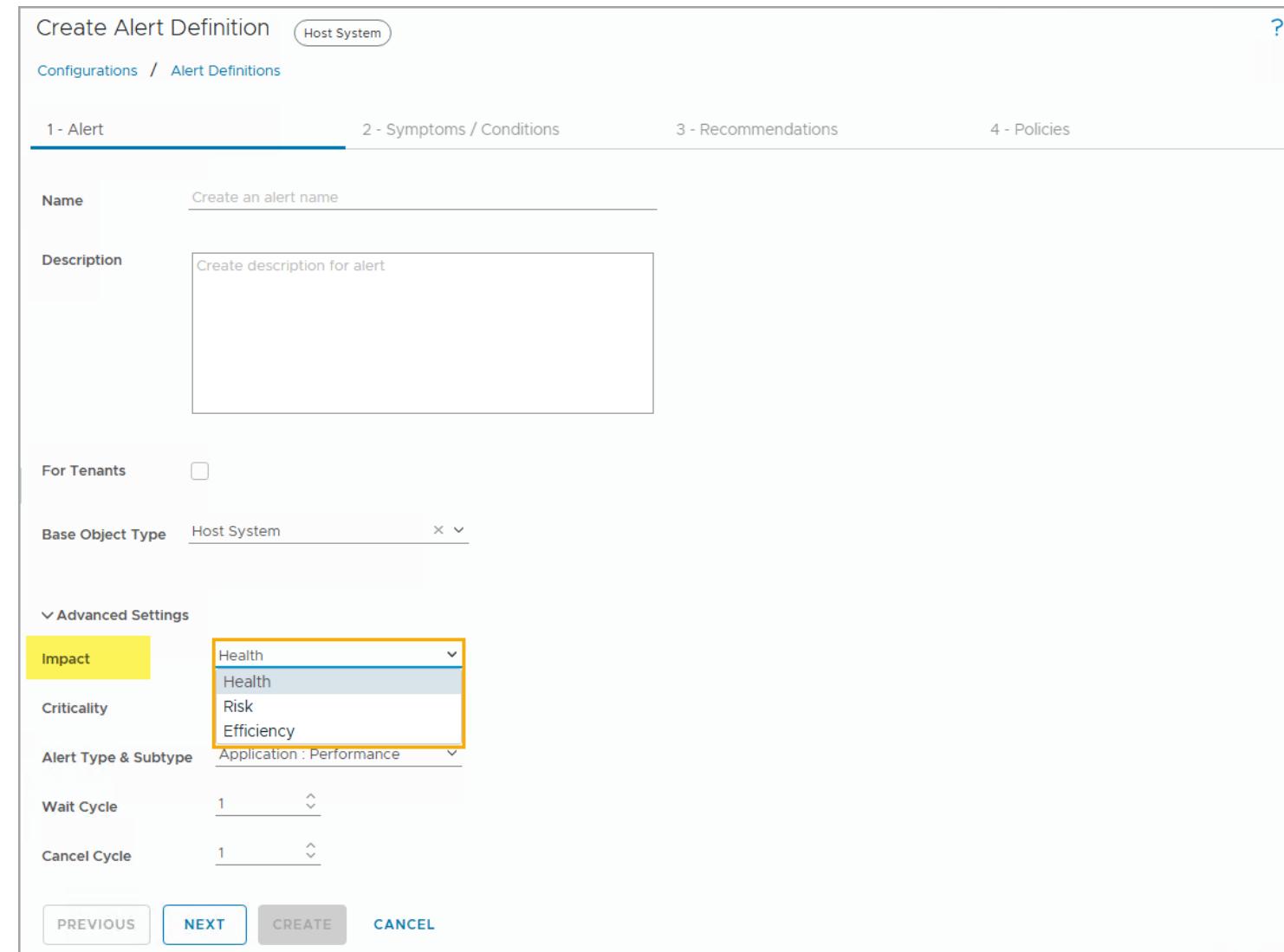
Criticality

Alert Type & Subtype

Wait Cycle

Cancel Cycle

PREVIOUS NEXT CREATE CANCEL



Advanced Settings: Selecting the Criticality of the Alert

You use the Criticality setting to define the alert severity. The following settings are available:

- **Info**
- **Warning**
- **Immediate**
- **Critical**
- **Symptom Based**

Alert criticality determines the **Health**, **Risk**, and **Efficiency** badge colors.

Create Alert Definition Host System ?

Configurations / Alert Definitions

1 - Alert 2 - Symptoms / Conditions 3 - Recommendations 4 - Policies

Name

Description

For Tenants

Base Object Type x v

Advanced Settings

Impact

Criticality

Alert Type & Subtype

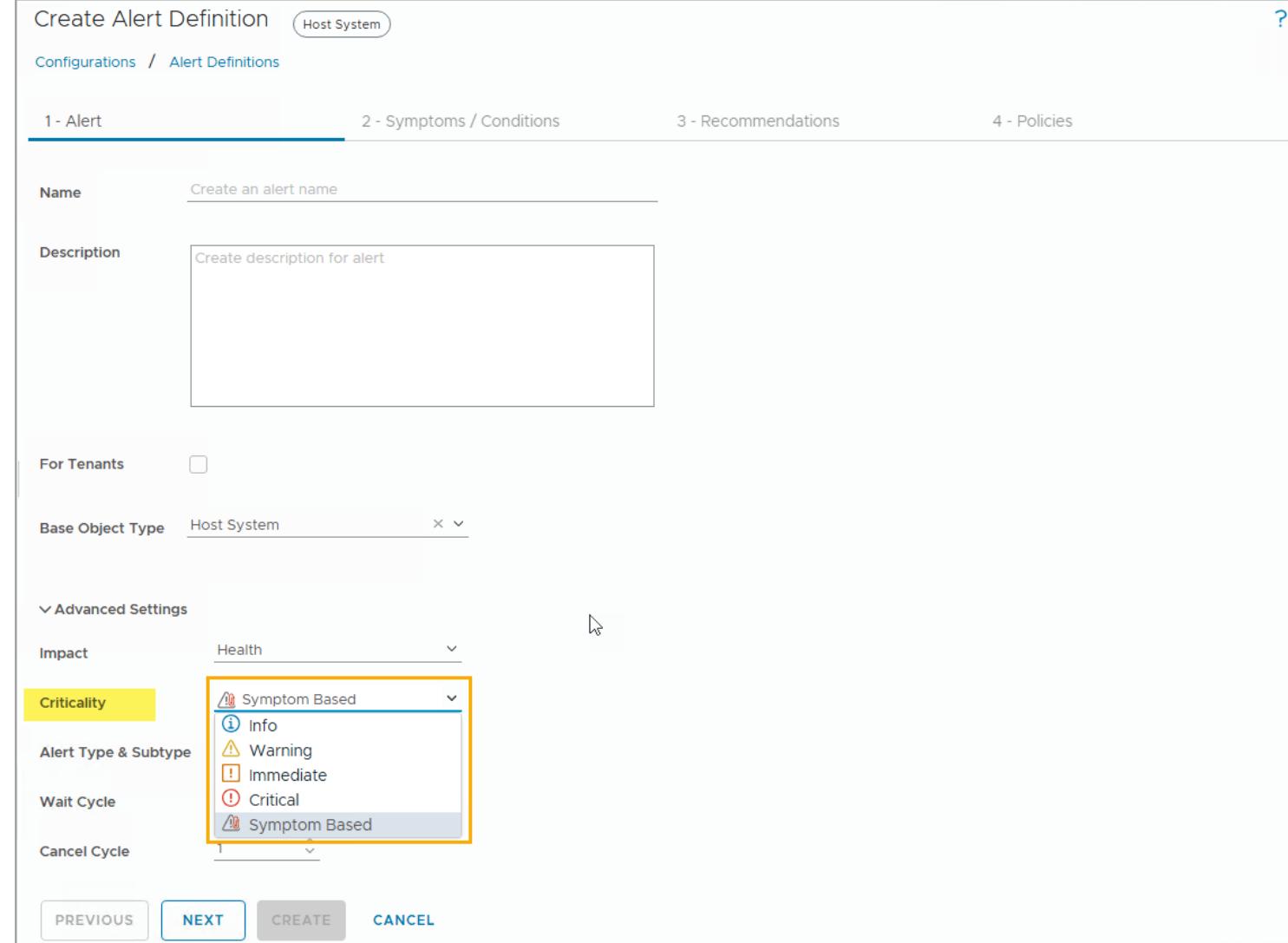
Wait Cycle

Cancel Cycle

Symptom Based

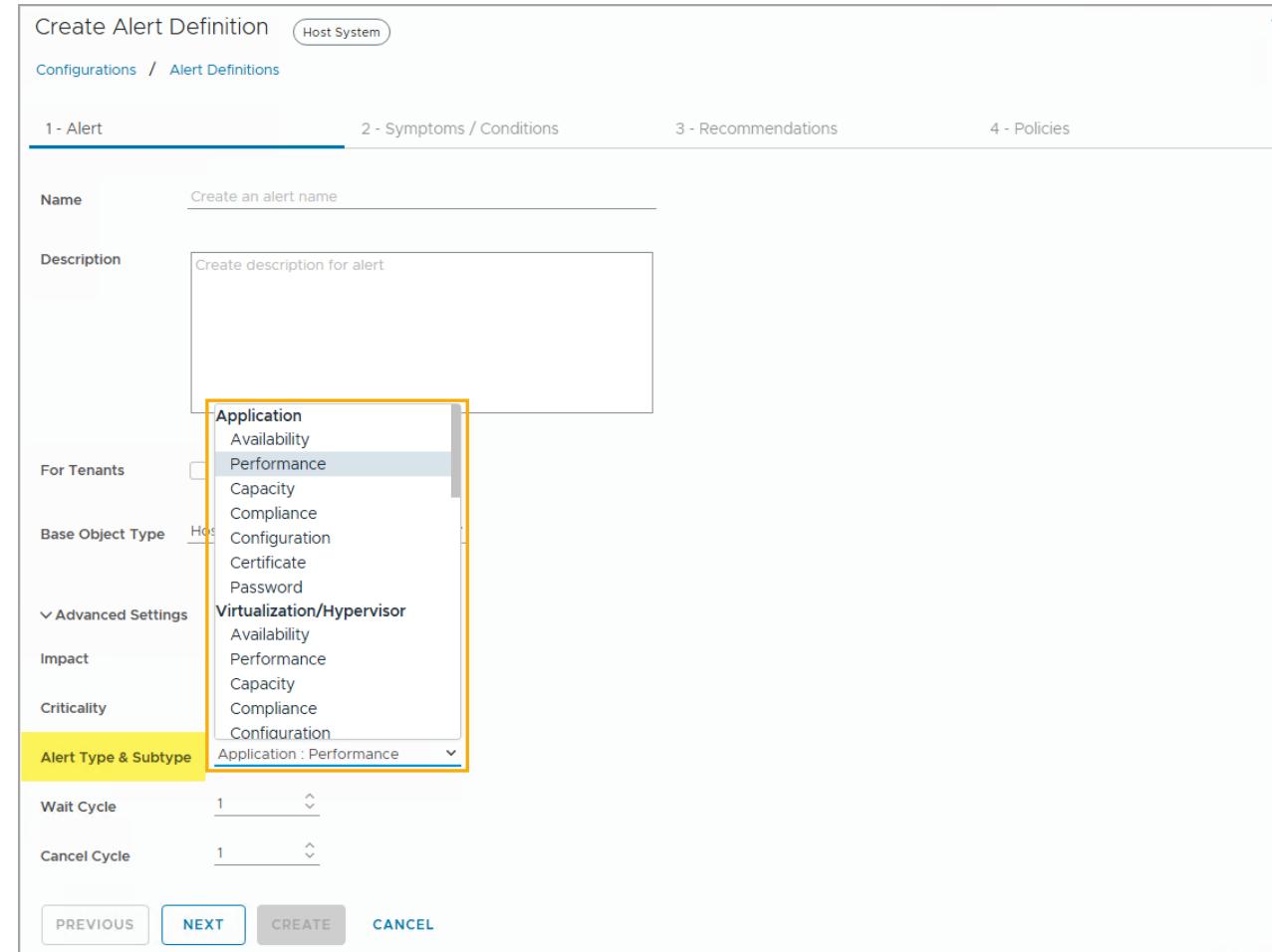
Info
Warning
Immediate
Critical
Symptom Based

PREVIOUS NEXT CREATE CANCEL



Advanced Settings: Selecting the Alert Types and Subtypes

Alert types and subtypes categorize the alert. They are useful when filtering or sorting alerts in the user interface.



Advanced Settings: Configuring the Alert Wait Cycles and Cancel Cycles

The **Wait Cycle** determines when an alert is generated. The symptoms included in the alert definition remain triggered for the number of collection cycles before the alert is generated.

The **Cancel Cycle** determines how long an alert remains active. The alert is not canceled until the number of polling cycles has passed, after the last symptom is detected.

Create Alert Definition Host System ?

Configurations / Alert Definitions

1 - Alert 2 - Symptoms / Conditions 3 - Recommendations 4 - Policies

Name

Description

For Tenants

Base Object Type x v

▼ Advanced Settings

Impact

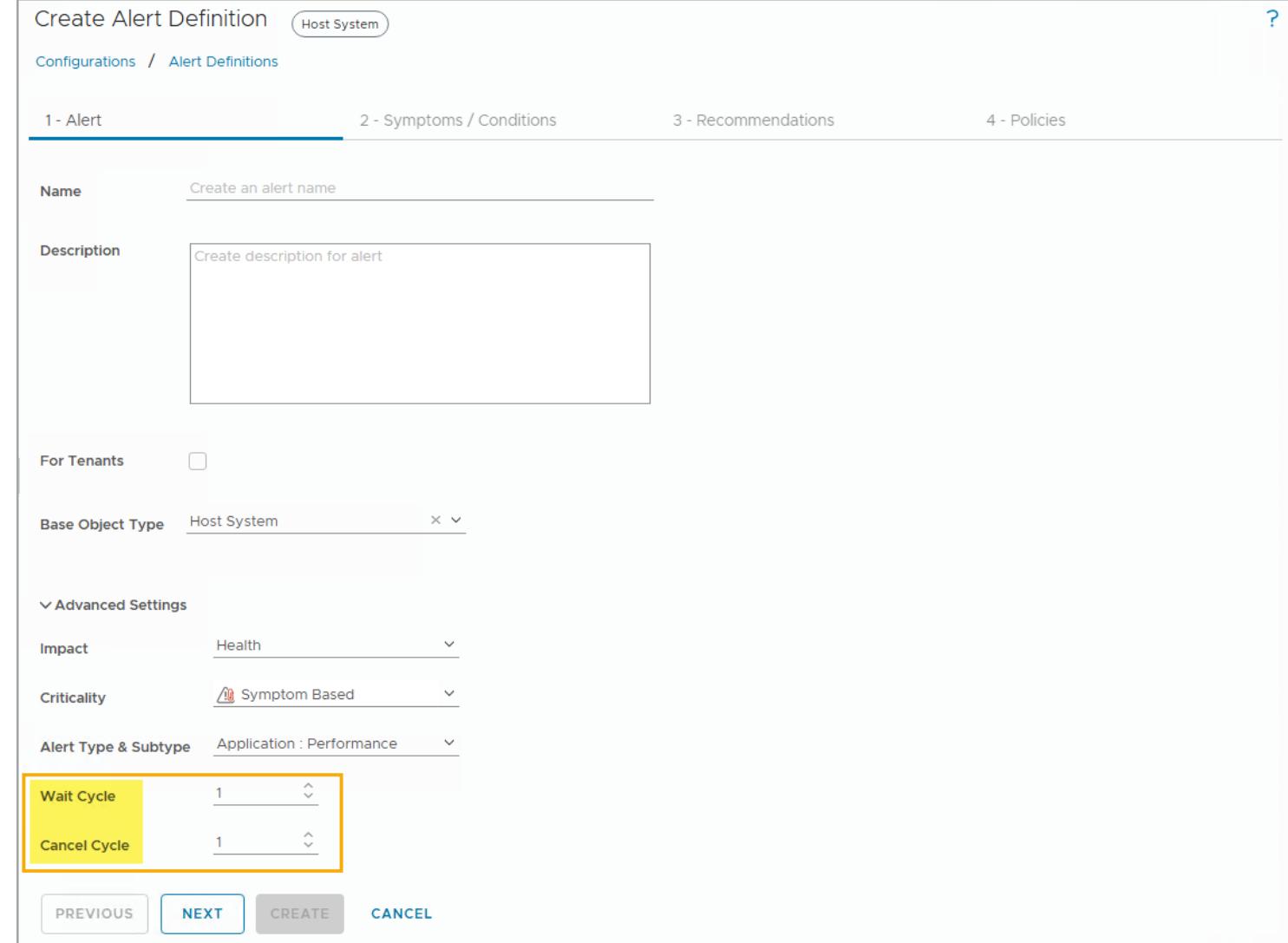
Criticality

Alert Type & Subtype

Wait Cycle

Cancel Cycle

PREVIOUS NEXT CREATE CANCEL



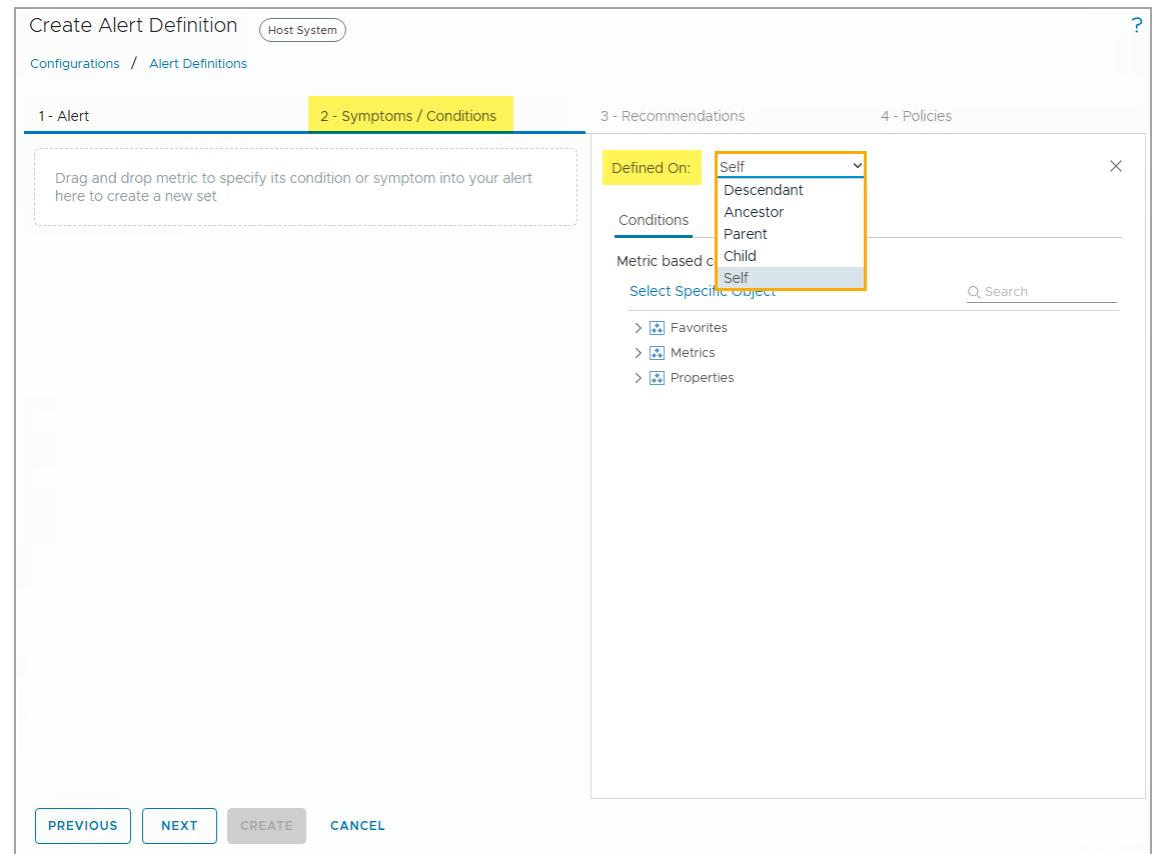
Configuring Alert Evaluation Targets

The **Defined On** option defines the object type that the symptom evaluates.

The following selections are available:

- **Descendant**: N levels down the tree
- **Ancestor**: N levels up the tree
- **Parent**: One level up the inventory tree
- **Child**: One level down the tree
- **Self**: Symptom base object type, same as the alert base object type

If you do not know the relationships, you can go to the **Environment** page to view the inventory tree for that object.



Adding Symptoms to an Alert Definition

An alert definition requires one or more symptoms for an alert definition. To add a symptom, you can drag the desired symptoms from the symptom list to the symptom/condition specification area.

In the example, you can filter the symptom definitions based on child object types of the base object type Host System. Because **Child** is selected, you can add a virtual machine symptom to the alert definition.

Create Alert Definition Host System ?

Configurations / Alert Definitions

1 - Alert 2 - Symptoms / Conditions 3 - Recommendations 4 - Policies

Defined On: Child Virtual Machine X

Conditions Symptoms

Select Symptom Metric / Property + CREATE NEW SYMPTOM

Type here to apply filters X

Symptom Name ↑	Criticality	Metric Name
... > (DEP) Virtual machine CPU cont...	!	CPU Contention (%)
... > (DEP) Virtual machine CPU cont...	!	CPU Contention (%)
... > (DEP) Virtual machine CPU cont...	!	CPU Contention (%)
... > (DEP) Virtual machine CPU dem...	!	CPU Demand (%)
... > (DEP) Virtual machine CPU dem...	!	CPU Demand (%)
... > (DEP) Virtual machine CPU dem...	!	CPU Demand (%)
... > (DEP) Virtual machine CPU De...	!	CPU Demand (MHz)
... > (DEP) Virtual machine CPU I/O ...	!	CPU Other Wait (%)
... > (DEP) Virtual machine CPU I/O ...	!	CPU Other Wait (%)
... > (DEP) Virtual machine CPU I/O ...	!	CPU Other Wait (%)

PREVIOUS NEXT CREATE CANCEL

Configuring the Symptom Test Condition

After you add a symptom definition to an alert definition, you must configure the symptom test condition.

You can choose from the following value types:

- **Count:** A specific number of child objects exhibit this symptom.
- **Percent:** A certain percentage of child objects exhibit this symptom.
- **Any:** Any child object can exhibit this symptom.
- **All:** All child objects must exhibit this symptom.

The screenshot shows the 'Create Alert Definition' wizard on the 'Host System' tab, specifically the '2 - Symptoms / Conditions' step. The alert is defined for a 'Child - Virtual Machine'. The condition is set to 'The set is met when > 50 Percent of child virtual machine exhibit the following symptoms / condition.' A dropdown menu is open over the 'Percent' option, showing 'Count', 'Percent', 'Any', and 'All' as options. Below this, a list of symptoms is shown, starting with '(DEP) Virtual machine CPU contention' at the 'Critical' level. A note indicates that if CPU Contention (%) > 30, it triggers a Critical alert. A large orange box highlights the condition configuration area. At the bottom of the screen, there are 'PREVIOUS', 'NEXT', 'CREATE', and 'CANCEL' buttons.

Defined On: Child Virtual Machine

Conditions Symptoms

Select Symptom Metric / Property + CREATE NEW SYMPTOM

Symptom Name	Criticality	Metric Name
(DEP) Virtual machine CPU co-s...	⚠	CPU Co-stop (%)
(DEP) Virtual machine CPU cont...	❗	CPU Contention (%)
(DEP) Virtual machine CPU cont...	ⓘ	CPU Contention (%)
(DEP) Virtual machine CPU cont...	⚠	CPU Contention (%)
(DEP) Virtual machine CPU cont...	ⓘ	CPU Contention (%)
(DEP) Virtual machine CPU dem...	ⓘ	CPU Demand (%)
(DEP) Virtual machine CPU dem...	ⓘ	CPU Demand (%)
(DEP) Virtual machine CPU dem...	⚠	CPU Demand (%)
(DEP) Virtual machine CPU De...	ⓘ	CPU Demand (MHz)

Adding Conditions to an Alert Definition

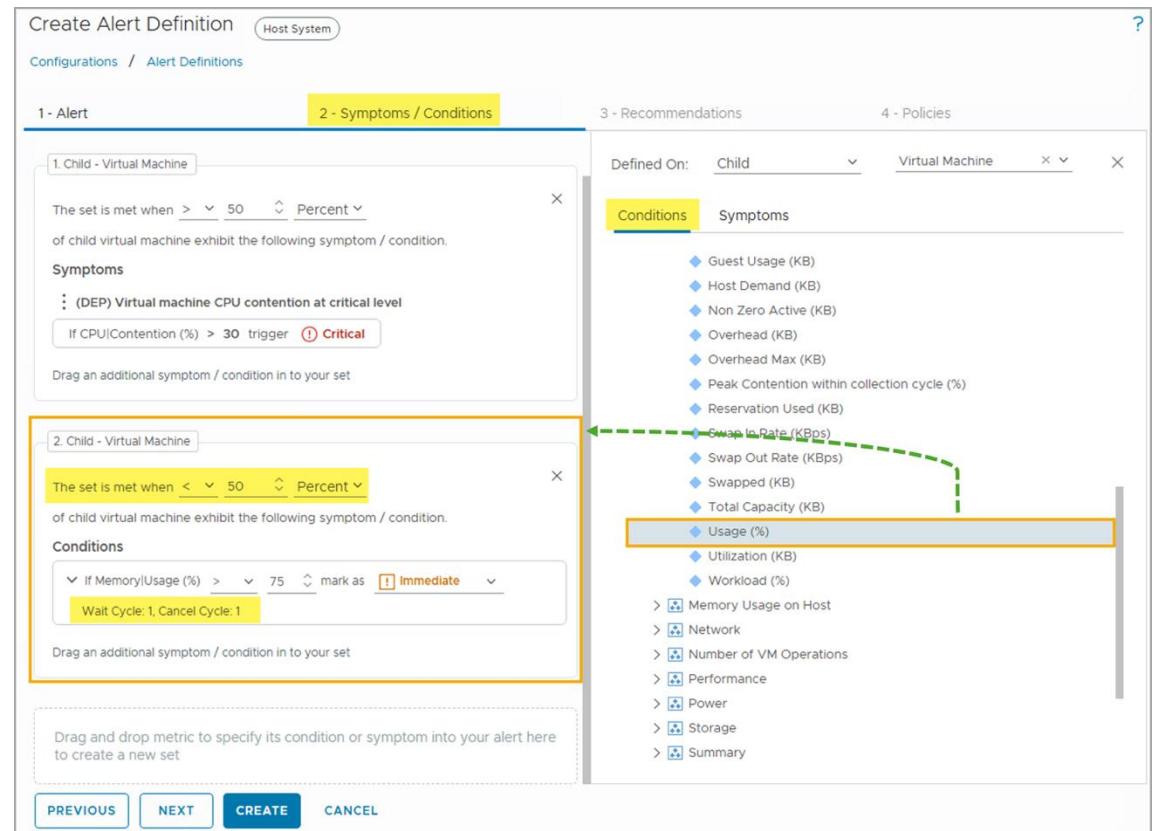
You can combine conditions and symptoms in an alert definition.

To add a condition to the alert definition, click the **Condition** tab and drag any condition you need to the Alert Definition area.

Conditions support static thresholds only and do not have advanced customization options (such as wait, cancel cycle, and instanced metrics). All conditions have a default wait cycle of 1 and a default cancel cycle of 1.

You must configure the test condition, static threshold, and the criticality of the added condition.

When any or all of the conditions and symptom tests are met, the alert is generated.

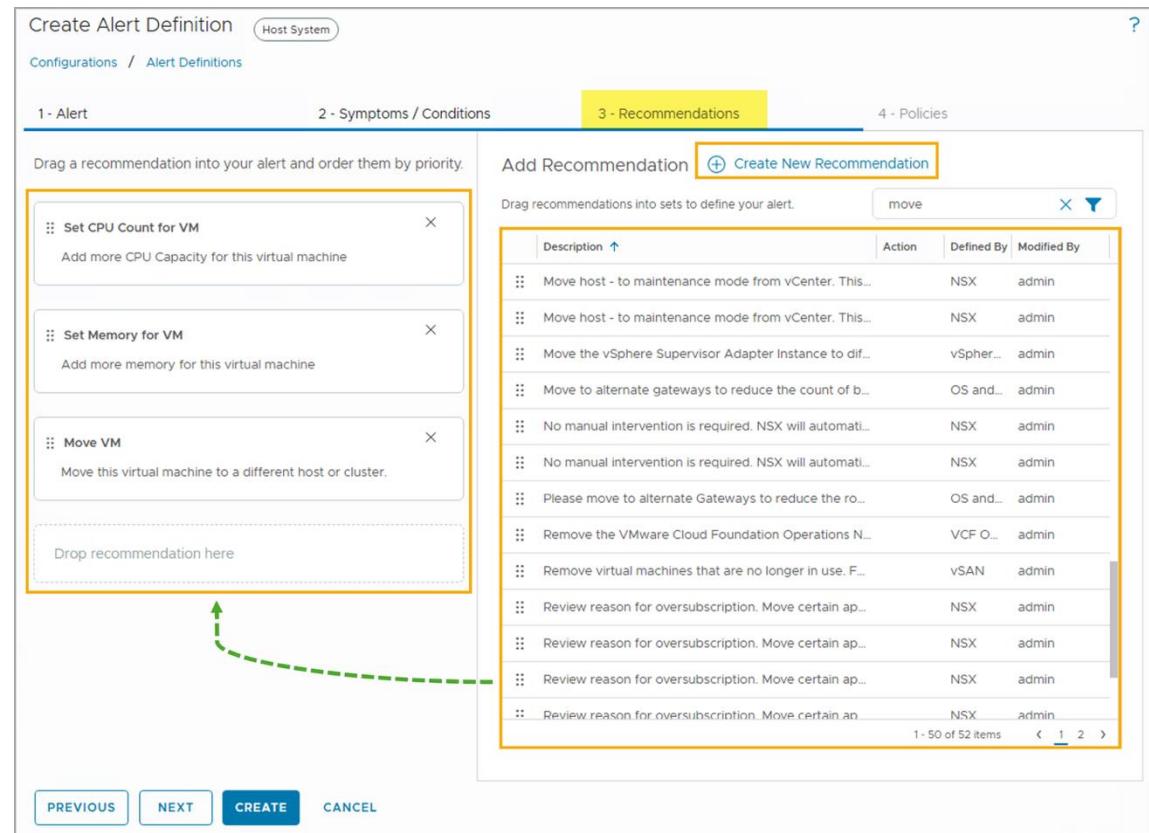


Adding Recommendations to an Alert Definition

Assigning recommendations to an alert definition enables you to provide useful troubleshooting information or resources to alert viewers. Adding recommendations is optional. You can assign zero or more recommendations to the alert definition.

If you add more than one recommendation, you can prioritize the recommendations.

If none of the existing recommendations fits your use case, you can also click **+ Create New Recommendations** to create custom recommendations.



Assigning the Alert Definition to a Policy

You can select the policies in which you want to activate this alert. To associate this alert definition to any policy, select the checkbox beside the policy.

Assigning the alert definition to a policy is optional at the alert definition creation phase.

You can select multiple policies.

Create Alert Definition Host System ?

Configurations / Alert Definitions

1 - Alert 2 - Symptoms / Conditions 3 - Recommendations **4 - Policies**

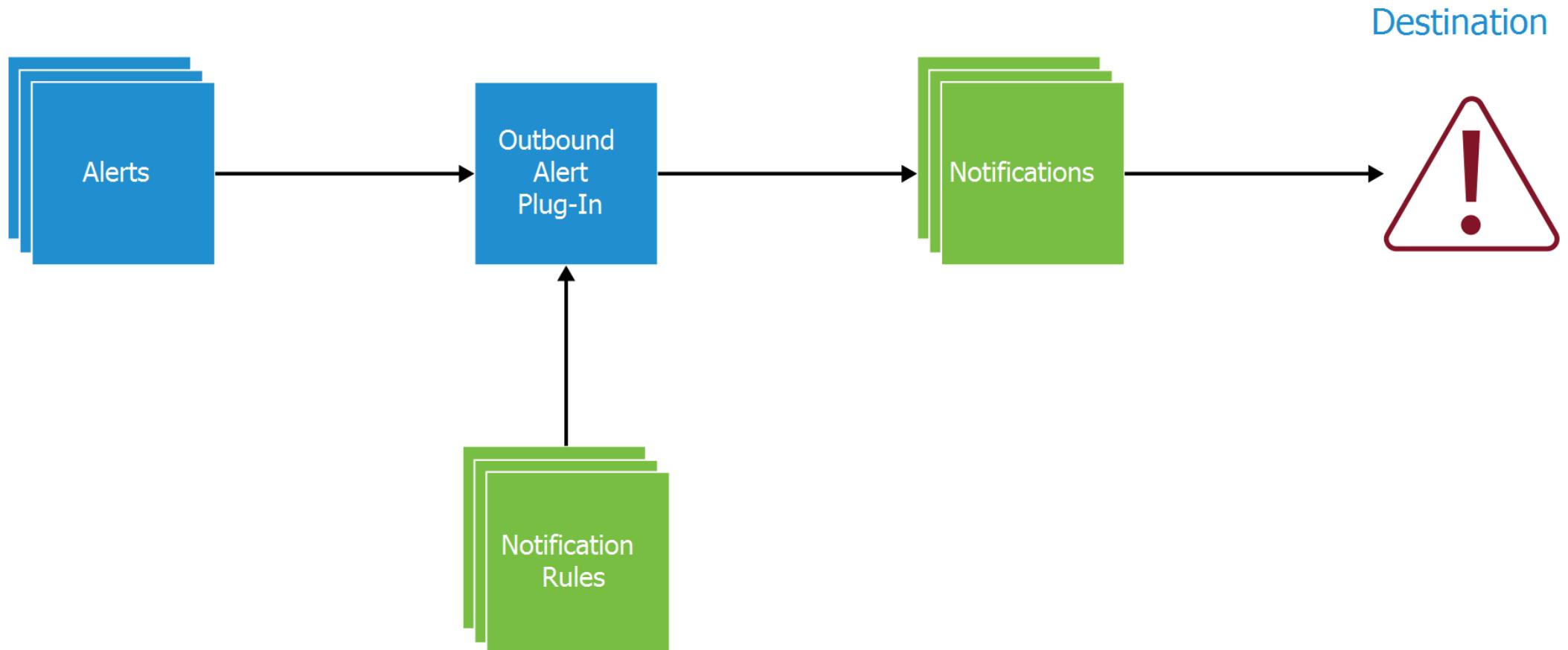
Select which policies you would like to activate this alert in. You may also customize thresholds per policy.

Foundation Policy
 Default Policy

PREVIOUS NEXT CREATE CANCEL

Sending Alert Notifications

VCF Operations can send alert notifications to emails and external destination monitoring systems with the help of outbound alert plug-ins.



Outbound Alert Plug-in Types

To send alert notifications externally, you need to configure one or more outbound alert plug-ins. VCF Operations supports several types of outbound alert plug-ins.

Alert Plug-in	Use Case
Standard Email	Email alert notifications to any interested individuals, for example, storage administrators or network operations engineers
SNMP Trap	Logs alerts on an SNMP trap server in your environment
Webhook Notification	Sends outbound payload to any endpoint REST API
Log File	Logs alerts to a file on a VCF Operations instance
Network Share	Sends reports to a shared location
Service-Now Notification	Creates a Service Now incident when an alert is triggered
Slack	Forwards alerts to different Slack channels

Creating Outbound Alert Plug-In Instances

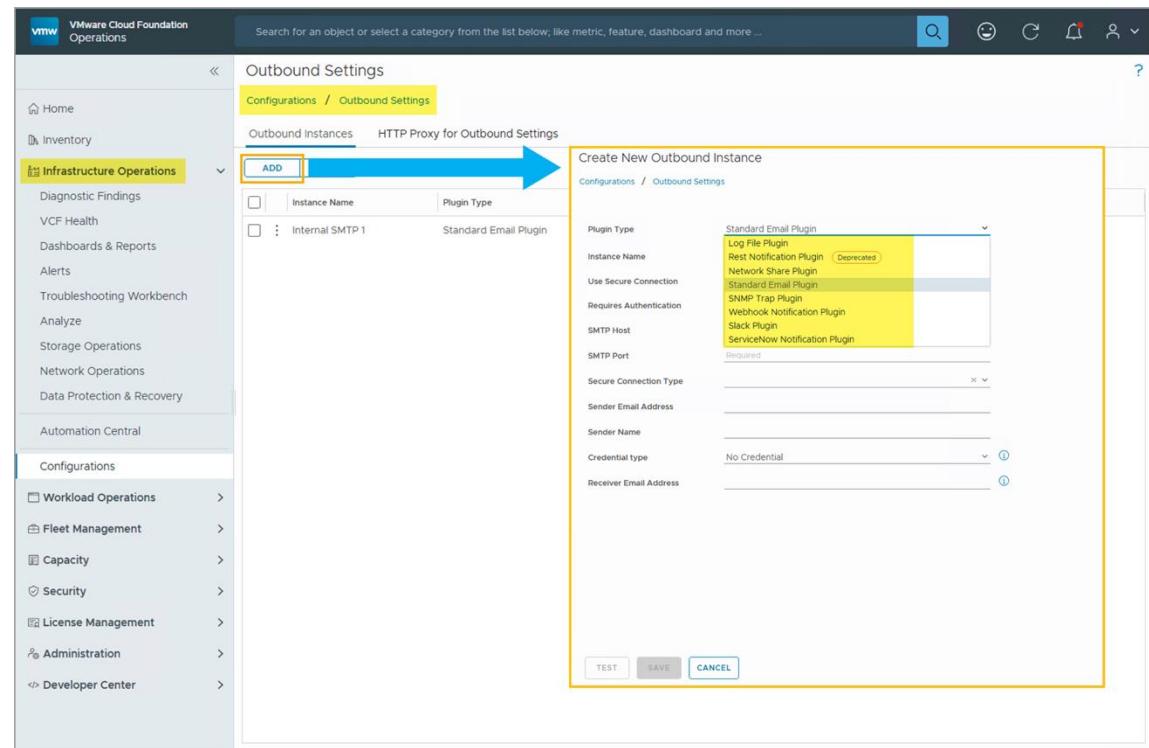
Outbound Settings is used to manage your communication settings so that you can send information to users or applications external to VCF Operations.

To access the outbound alert plug-in settings, navigate to **Infrastructure Operations > Configurations > Outbound Settings**.

To add a new outbound instance, click **ADD** and complete the following tasks:

1. Select the plug-in type.
2. Provide a plug-in instance name.
3. Configure the settings specific to the outbound instance selected, such as host name, port number, SSL/TLS type, authentication, domain, file share path, and so on.

A plug-in instance is automatically enabled after it is created.



Configuring the Log File Plug-Ins

The log file plug-in has a simple configuration. You configure an instance name and the name of an existing directory on the VCF Operations node.

To configure the log file plug-in, you specify the output folder on the VCF Operations node.

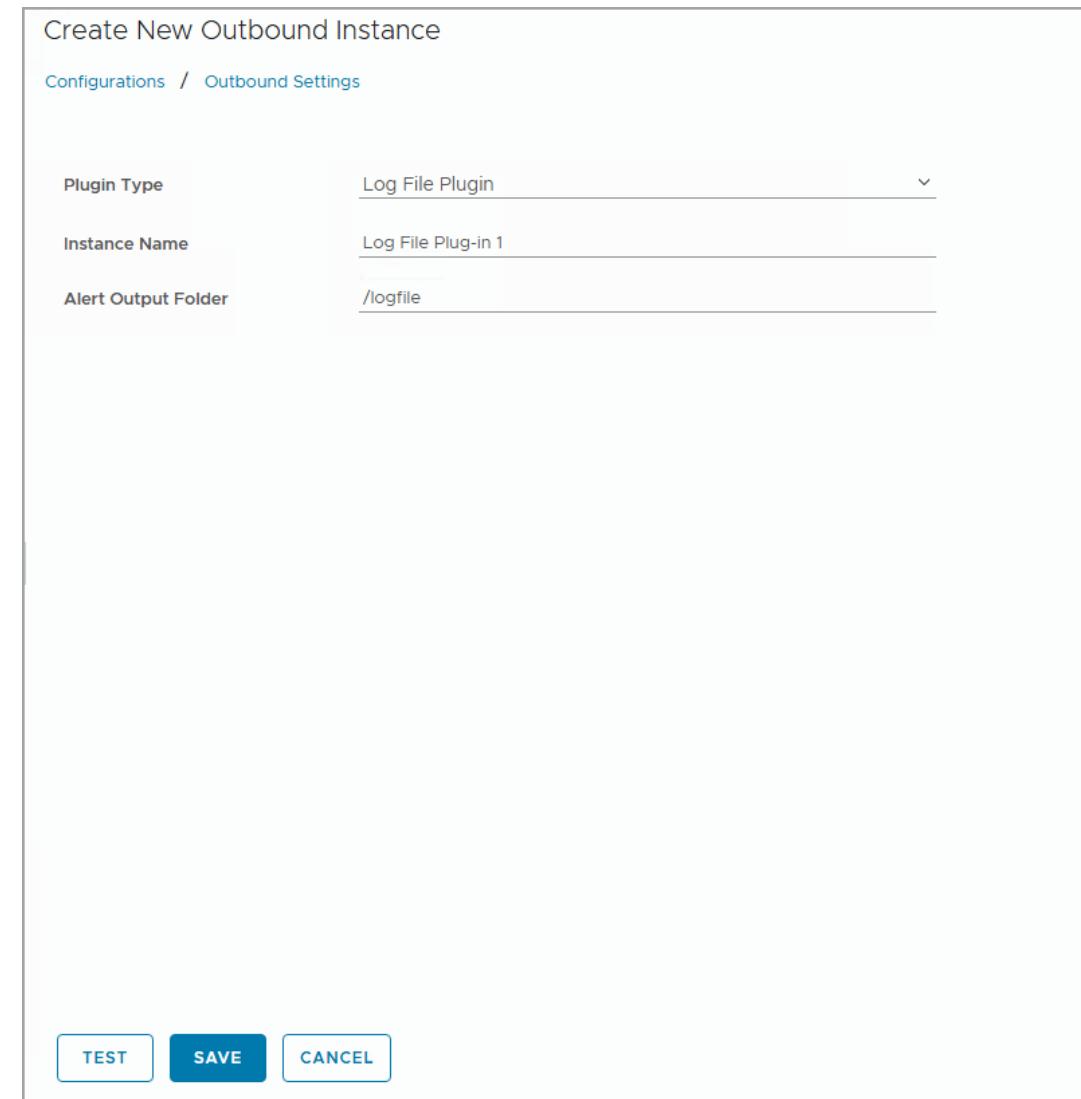
All alerts from the VCF Operations adapter are forwarded to the log file. No rules are required.

Create New Outbound Instance

Configurations / Outbound Settings

Plugin Type	Log File Plugin
Instance Name	Log File Plug-in 1
Alert Output Folder	/logfile

TEST **SAVE** **CANCEL**



Configuring the Standard Email Plug-Ins

With a Standard Email Plug-In, you enable the VCF Operations environment to send alert emails to the designated recipients, such as infrastructure administrators or support desk email lists.

To configure the Standard Email Plug-In, you must gather the following configuration information:

- SMTP host and port
- Secure connection type
- Authentication details
- Sender email and name

You can use a secure connection and require authentication for the Standard Email Plug-In.

Create New Outbound Instance

Configurations / Outbound Settings

Plugin Type	Standard Email Plugin
Instance Name	Internal SMTP Server 2
Use Secure Connection	<input checked="" type="checkbox"/>
Requires Authentication	<input checked="" type="checkbox"/>
SMTP Host	102.10.1.128
SMTP Port	443
Secure Connection Type	TLS
Sender Email Address	no.reply@vmbeans.com
Sender Name	No Reply
Credential type	Basic Authentication
Credential	no.reply@vmbeans.com
Receiver Email Address	admin1@vmbeans.com

TEST **SAVE** **CANCEL**

Creating Notification Rules

Notification rules control how different types of alert notifications are sent to which recipients by what outbound methods.

After creating the alert definitions and adding the outbound alert plug-in instances, you must configure notification rules so that alert notifications can be sent externally.

To create a notification rule, navigate to **Infrastructure Operations > Configurations > Notifications**, click **ADD**, and complete the necessary notification rule settings.

The screenshot shows the 'Notifications' configuration screen in VMware Infrastructure Operations. The top navigation bar includes 'Configurations / Notifications' and tabs for '1 - Notification', '2 - Define Criteria', '3 - Set Outbound Method', '4 - Select Payload Template', and '5 - Test Notification'. The '1 - Notification' tab is active. The main area is divided into sections: 'Criteria' (Object Type dropdown), 'Alert Scope' (Select set of Alerts dropdown), 'Notify On' (Status dropdown), and 'Control State' (All States dropdown). Buttons at the bottom include 'PREVIOUS', 'NEXT', 'CREATE' (highlighted in blue), and 'CANCEL'.

Notifications

Configurations / Notifications

1 - Notification 2 - Define Criteria 3 - Set Outbound Method 4 - Select Payload Template 5 - Test Notification

Criteria Object Type Select an Object Type CLEAR

The alert triggers on ANY of the selected object types:

(Virtual Machine X)

Alert Scope: Select set of Alerts you would like to receive notifications about.

Category Alert Type CLEAR

The alert contains ANY of the selected alert types: ↗

Application Alerts: (Performance X) (Capacity X)

Virtualization/Hypervisor Alerts: (Performance X) (Capacity X)

Hardware (OSI) Alerts: (Performance X) (Capacity X)

Storage Alerts: (Performance X) (Capacity X)

Criticality Immediate X CLEAR

Control State All States

Notify On: Select the Alert status change you want to receive notifications on.

Status All Statuses

PREVIOUS NEXT CREATE CANCEL

Understanding Payload Templates

Payload templates are alert notification message templates that are used when sending an alert notification.

VCF Operations provides a set of default payload templates for various outbound methods, including Email, Log, SNMP Trap, ServiceNow, Slack, WLP Action, and Webhook.

To view existing payload templates and to add new custom payload templates, navigate to **Infrastructure Operations > Configurations > Payload Templates**.

You can also create a customized payload template for alert notifications to meet your needs.

The screenshot shows the VMware Cloud Foundation Operations interface. The left sidebar has a tree view with 'Infrastructure Operations' selected, which is highlighted in yellow. Under 'Configurations', 'Payload Templates' is also highlighted in yellow. The main content area is titled 'Payload Templates' and shows a table of existing templates. The table has columns for 'Template Name', 'Description', 'Object Types', 'Attached Notifications', 'Attached Outbound Methods', 'Modified By', and 'Last Modified'. Seven default templates are listed:

	Template Name	Description	Object Types	Attached Notifications	Attached Outbound Methods	Modified By	Last Modified
1	Default Email Template	Description for Default Email...	2	Standard Email...			
2	Default Log Template	Description for Default Log ...	0	Log File Plugin			
3	Default SNMP Trap Template	Description for Default SNM...	0	SNMP Trap Plu...			
4	Default ServiceNow Templa...	Description for Default Serv...	0	ServiceNow No...			
5	Default Slack Template	Description for Default Slac...	0	Slack Plugin			
6	Default WLP Action Webhook...	Description for Default WLP...	0	Webhook Notif...			
7	Default Webhook Template	Description for Default Web...	0	Webhook Notif...			

Review of Learner Objectives

- Configure a custom alert using the Create Alert Definition workflow
- Add symptoms, conditions, and recommendations to an alert definition
- Create notifications for a custom alert definition

Managing Alerts



Learner Objectives

- Examine and manage triggered alerts

Viewing Alerts in VCF Operations

All alerts generated in the environment are grouped and listed on the **Alerts** page in the VCF Operations console. To view the **Alerts** page, navigate to **Infrastructure Operations > Alerts**.

The **Alerts** page provides the following options to help you group and locate alerts:

- **Group By:** You can change how alerts are grouped and displayed based on criteria such as Criticality, Definition, Object Type, and so on.
- **Filter:** You can use filter options to only view alerts that match certain criteria such as owner, alert types, impact, and so on.

To view the generated alerts, click the **Expand** button next to each alert group.

The screenshot shows the VMware Cloud Foundation Operations console. The left sidebar has a tree structure with 'Home', 'Inventory', 'Infrastructure Operations' (selected), 'Diagnostic Findings', 'VCF Health', 'Dashboards & Reports', 'Alerts' (selected), 'Troubleshooting Workbench', 'Analyze', 'Storage Operations', 'Network Operations', 'Data Protection & Recovery', 'Automation Central', 'Configurations', 'Workload Operations', 'Fleet Management', 'Capacity', 'Security', 'License Management', 'Administration', and 'Developer Center'. The main content area is titled 'All Alerts' and shows a search bar and filter options for 'Alert Id', 'Alert', 'Owner', 'Impact', 'Alert Type', 'Alert Subtype', 'Status', and 'Importance'. A 'Group By' button is highlighted with a yellow box and an arrow pointing to a dropdown menu with options: 'None' (selected), 'Definition', 'Scope', 'Time', 'Criticality', and 'Object Type'. Below this, a table lists alerts with columns for 'Criticality', 'Alert', 'Triggered On', 'Status', 'Created On', 'Alert Type', 'Alert Subtype', and 'Importance'. One alert is expanded, showing more details like 'After one additional host failure, vSAN Cluster will not have enough resources to rebuild all objects.' and its status 'Medium (40%)'. The bottom right of the alert table says '1-1 of 1 items'.

Examining Alert Details

On the **Alerts** page, you can click any alert to view the details of the selected alert.

On the alert details view, you can easily access the following information:

- Object name
- Alert definition triggered
- Recommendations
- Alert basis
- Related alerts
- Potential evidence
- Notes

The screenshot shows the 'All Alerts' page in the VMware vSphere Web Client. A specific alert titled 'After one additional host failure' is selected and highlighted with a yellow border. The alert details pane on the right provides the following information:

- Object:** vSAN Cluster(EDU-cl01)
- Description:** After one additional host failure, vSAN Cluster will not have enough resources to rebuild all objects.
- Started on:** Apr 17, 2025 8:12:13 AM | **Assigned To:** admin
- Alert Details:** The alert is critical (red). It lists symptoms such as 'Check of the vSAN component limits, disk space and RC reservations assuming one host failure, resulted in error.' and 'has been observed on vSAN Cluster(EDU-cl01) vSAN-Skyline-Health'.
- Recommendations:** See VMware KB 2108743 to troubleshoot this alert.
- Alert Basis:** 1. Self - vSAN Cluster | any
- Symptoms:** The critical symptom described above.
- Notes:** A text input field for leaving a note, with 'SUBMIT' and 'CLEAR' buttons below it.

Taking Actions on an Alert

To view the available actions that you can take towards an alert, select an alert and click **Actions**.

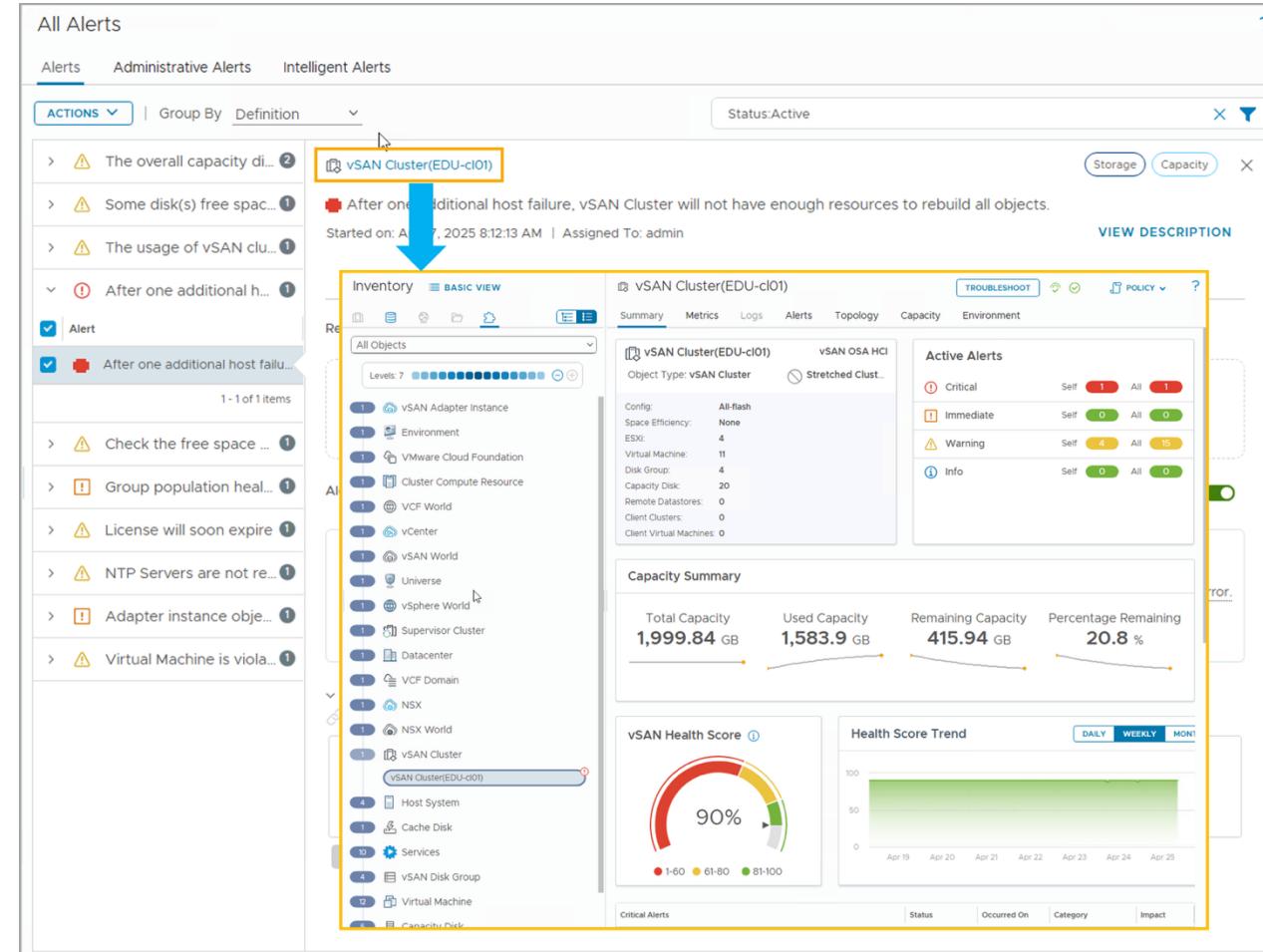
You can use the following available actions to manage a selected alert:

- Cancel Alert
- Delete Canceled Alerts
- Suspend
- Assign to ...
- Take Ownership
- Release Ownership
- Go to Alert Definition
- Deactivate
- LogInsightAdapter

The screenshot shows the 'All Alerts' interface in the vSphere Web Client. A context menu is open over a specific alert entry, with the 'Actions' option highlighted. The menu items listed are: Cancel Alert, Delete Canceled Alerts, Suspend, Assign to ..., Take Ownership, Release Ownership, Go to Alert Definition, and Deactivate... Below the menu, the alert details are shown: 'LogInsightAdapter' has 'Adapter instance object has error status' and 'Virtual Machine is violating VMware vSphere Security Configuration Guide for vSphere version 8 and above'. The alert is triggered by 'sa-m01-sup' and was created on 4/17/25 8:07 AM.

Accessing Object Details View from an Alert

From the alert details view, you can click the object name to access the object details view.



Accessing Troubleshooting Workbench for an Object

From the object details view, you can click **TROUBLESHOOT** to access the **Active Troubleshooting** session page for this object.

The screenshot shows the vSAN Cluster(EDU-cl01) details view in the vSAN OSA HCI interface. A yellow box highlights the 'TROUBLESHOOT' button in the top right corner, which has a blue arrow pointing down to the Active Alerts section. The Active Alerts section is also highlighted with a yellow border. This section displays potential evidence, including Events, Property Changes, and Anomalous Metrics, for the selected scope and time range. The Events panel shows no events found. The Property Changes and Anomalous Metrics panels show specific log entries and metric graphs for hosts like esxi-1.vcf.sddc.local and esxi-4.vcf.sddc.local.

Lab: Creating Custom Alert Definitions

Create a virtual machine alert and a host alert:

1. Configure a Virtual Machine Alert
2. Test the Custom Alert Definition
3. Manage Generated Alerts
4. Create a Log File Plug-In Instance

Review of Learner Objectives

- Examine and manage triggered alerts