

VCF Operations Policies

Importance

VCF Operations policies help to analyze and display information about the objects in your environment. These policies enable you to create and manage policies for various aspects, including security, sampling, and pricing, to optimize your IT operations and ensure compliance.

VCF Operations Policies



Learner Objectives

- Use policies to analyze information about various object types and objects in your environment
- Configure policies and other components
- Perform the importing and exporting of content

About Policies

A policy is a set of rules that you define for VCF Operations to analyze and display information about the objects in your Private Cloud environment.

<<

Home

Inventory

Infrastructure Operations

Diagnostic Findings

VCF Health

Dashboards & Reports

Alerts

Troubleshooting Workbench

Analyze

Storage Operations

Network Operations

Data Protection & Recovery

Automation Central

Configurations

Policy Definition

Configurations / Policy Definition

ADD

Type here to apply filters

Name	Status	Priority	Description	Last Modified	Modified By
Base Settings	Inactive			13 days ago	
Config Wizard Based Policy	Inactive			13 days ago	VMware
Default Policy	Active	D		13 days ago	
Foundation Policy	Inactive			13 days ago	VMware
NSX Security Configuration Guide	Inactive		NSX Security Configuration Guide. Recommendation...	13 days ago	VMware
Policy for Virtual Machines - Risk Profile 1	Inactive		This policy applies vSphere Security Configuration G...	13 days ago	VMware
Policy for Virtual Machines - Risk Profile 2	Inactive		This policy applies vSphere Security Configuration G...	13 days ago	VMware
Policy for Virtual Machines - Risk Profile 3	Inactive		This policy applies vSphere Security Configuration G...	13 days ago	VMware
vSAN Security Configuration Policy	Inactive			13 days ago	vSAN Security ...
vSphere Security Configuration Guide	Inactive			13 days ago	VMware

Relating Policies and Environment

VCF Operations policies support the operational decisions for your IT infrastructure and business units:

- With policies, you control the data that VCF Operations collects and reports for specific objects in your Private Cloud environment.
- When you manage policies, you must understand the operational priorities for your Private Cloud environment and tolerances for alerts and symptoms to meet the requirements for your business-critical applications.
- VCF Operations applies the policies in the priority order.

Designing Policies

Implementing policy decisions in VCF Operations is typically the responsibility of the Infrastructure Administrator or the Virtual Infrastructure Administrator, but users who have privileges can also create and modify policies.

You must be aware of the policies established to analyze and monitor the resources in your Private Cloud IT infrastructure:

- If you are a Network Operations engineer, you must understand how policies impact the data that VCF Operations reports on objects and which policies assigned to those objects trigger alerts and issues.
- If you are the person whose role is to recommend an initial setup for policies, you typically edit and configure the policies in VCF Operations.
- If your primary role is to assess problems that occur in your environment, but you do not have the responsibility to change the policies, you must still understand how the policies applied to objects affect the data that appears in VCF Operations. For example, you might need to know which policies apply to objects that are associated with particular alerts.
- If you are a typical application user who receives reports from VCF Operations, you must have a high-level understanding of the operational policies so that you can understand the reported data values.

About Base Settings

The Base Settings policy is the starting point for all policies. All policies are derived from base settings.

Policy Definition ?

Configurations / Policy Definition

ADD ...

Type here to apply filters ⌵

Name	Status	Priority	Description	Last Modified	Modified By
▼ Base Settings	Inactive			14 days ago	
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vSphere Security Configuration Guide	Inactive			14 days ago	VMware

About the Default Policy

By default, the default policy is assigned to all vSphere objects. This policy is automatically created when you configure the VCF adapter for the first time.

Policy Definition

Configurations / Policy Definition

ADD

...

Type here to apply filters

Name

Base Settings

Config Wizard Based Policy

Default Policy

Foundation Policy

NSX Security Configuration Guide

Policy for Virtual Machines - Risk ...

Policy for Virtual Machines - Risk ...

Policy for Virtual Machines - Risk ...

vSAN Security Configuration Policy

vSphere Security Configuration G...

Default Policy

EDIT POLICY

Parent policy: Base Settings

Priority: Default

Metrics and Properties

Local: 0 Attributes

Alerts and Symptoms

Local: 0 Alerts / 0 Symptoms

Capacity

Local: 0 Policy elements

Maintenance Schedule

Local: 0 Policy elements

Compliance

Local: 0 Policy elements

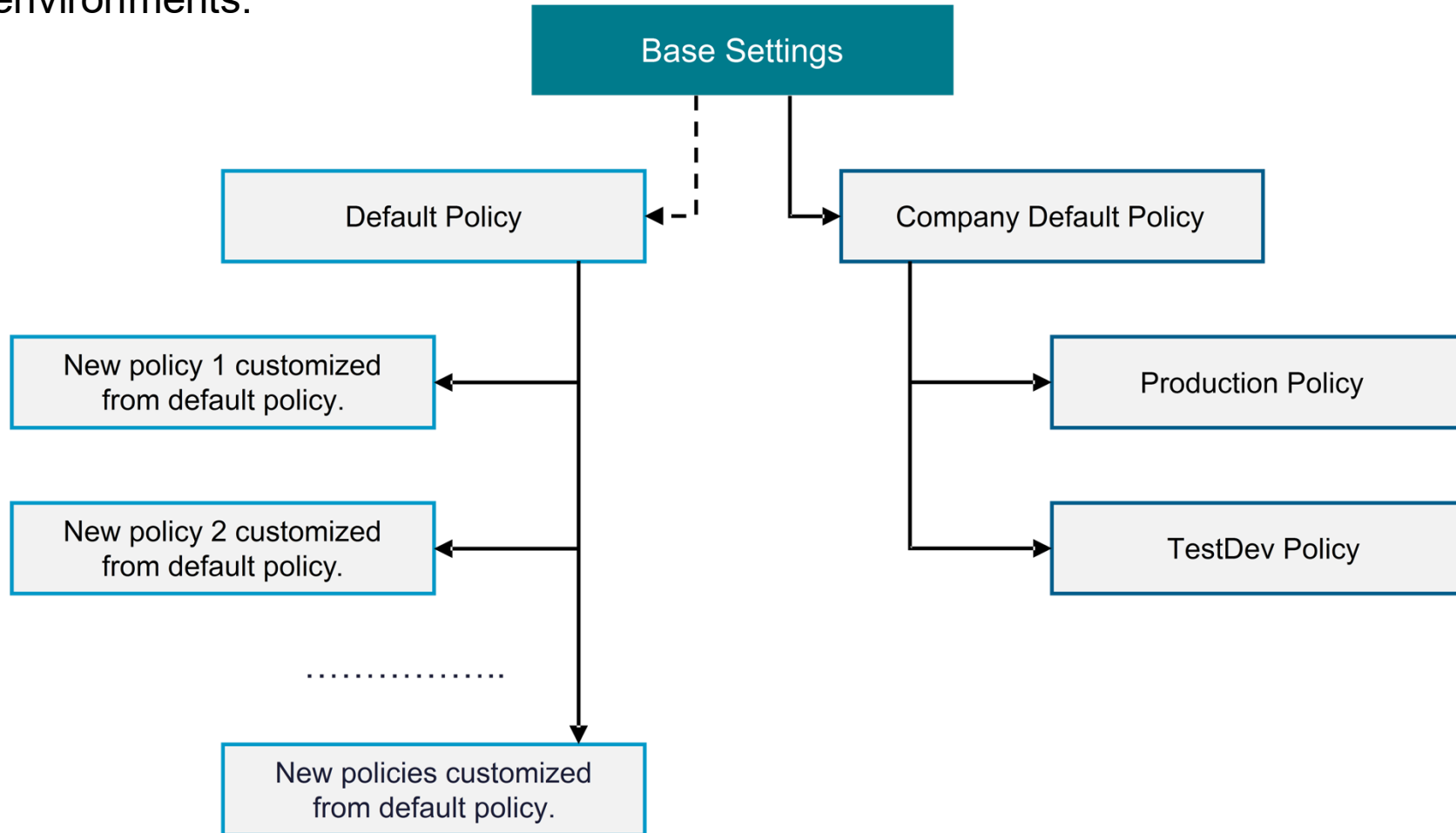
Workload Automation

Local: 0 Policy elements

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Policy Example

You must verify that your private cloud environment confirms to your company's policies. You create a default policy for your company. You must also create separate policies for the production, test, and development environments.



Policy Workspace: Creating Policy

You select a base policy from which your new custom policy can inherit settings.

Create] TestDev Policy

Configurations / Policy Definition

Name:

TestDev Policy

Description:

Policy for Monitoring Test and Dev Objects

Inherit From:

Default Policy

Metrics and Properties

Locally defined attributes

None

Alerts and Symptoms

Locally defined alerts

None

Locally defined symptoms

None

Capacity

Locally defined policy elements

None

Maintenance Schedule

Locally defined policy elements

None

Compliance

Locally defined policy elements

None

Workload Automation

Locally defined policy elements

None

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Policy Workspace: Metrics and Properties

You can select properties or metrics to include in your policy so that VCF Operations can collect data from the objects in your Private Cloud environment.

[Create] TestDev Policy? ×


Configurations / Policy Definition

Metrics and Properties

Select Object Type: × ▼

Type here to apply filters ⌵

Select Object Type or use All Filters to view and make changes



Total **32554** Attributes for **345** Object Types are available.
0 Attributes are defined locally in this policy.

Policy Workspace: Alerts and Symptoms

You can override alert definitions by enabling or disabling them. Enabling alert definitions activates alerting conditions.

[Create] TestDev Policy

Configurations / Policy Definition

Alerts and Symptoms

Alert Definitions

Symptom Definitions

Select Object Type:

Type here to apply filters

Search for an Object Type

vCenter

Cluster Compute Resource

Custom Datacenter

Datacenter

Datastore

Host System















Pod

Resource Pool

Supervisor Cluster

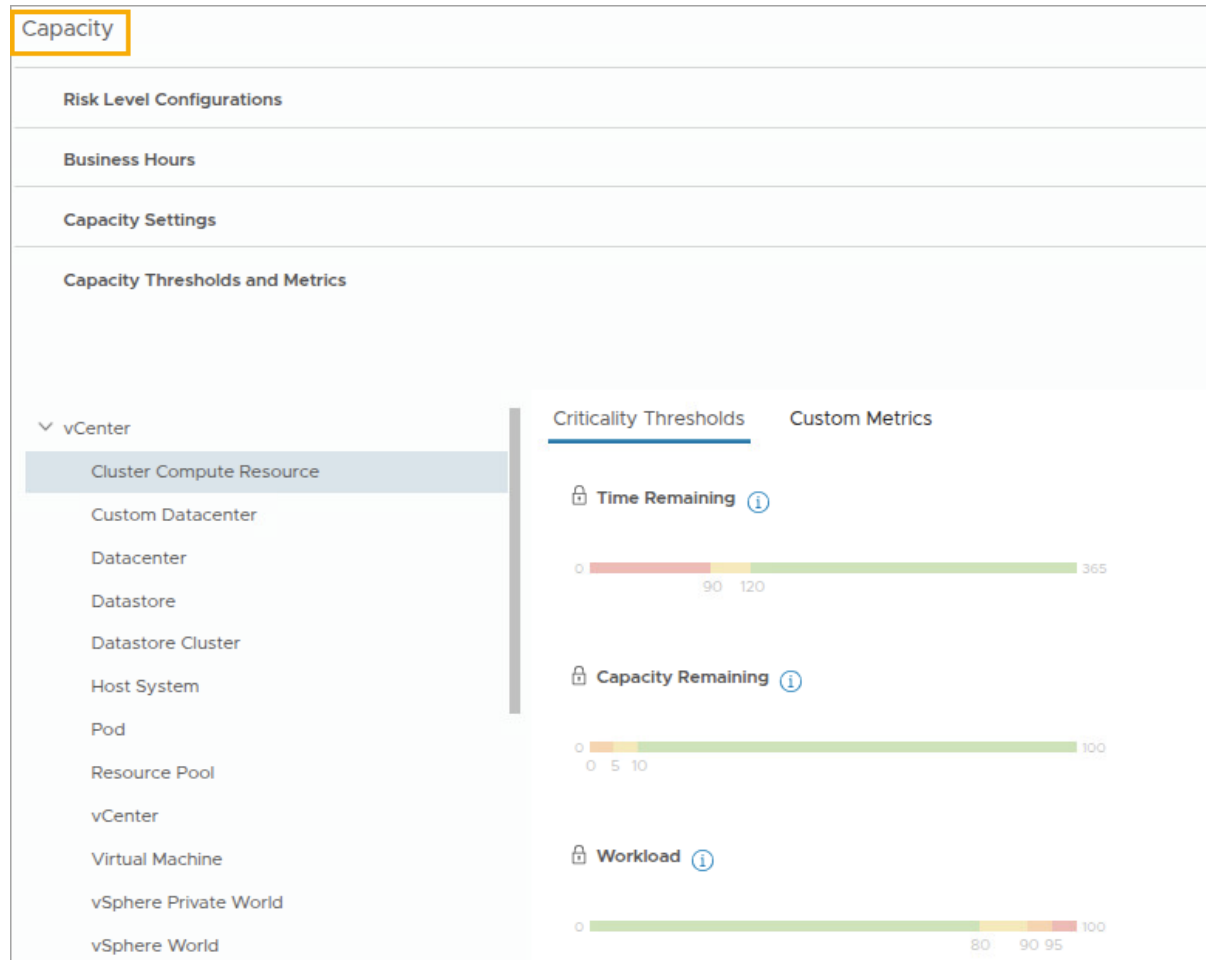
ACTIONS

Page Size: 20

Alert Definition	State	Automate	Symptoms / Conditions	Criticality
 (DEP) Application Efficiency is degraded	Activated <div>Inherited</div>	Not Applicable	3	
 (DEP) Application Health is degraded	Activated <div>Inherited</div>	Not Applicable	3	
 (DEP) Application Risk is elevated	Activated <div>Inherited</div>	Not Applicable	3	
 (DEP) Tier Efficiency is degraded	Activated <div>Inherited</div>	Not Applicable	3	
 (DEP) Tier Health is degraded	Activated <div>Inherited</div>	Not Applicable	3	
 (DEP) Tier Risk is elevated	Activated <div>Inherited</div>	Not Applicable	3	
 [Platform Safeguards] Frequent changes to prope...	Activated <div>Inherited</div>	Not Applicable	1	

Policy Workspace: Capacity Settings

You can configure Time Remaining Calculations, Business Hours, Capacity Settings, and Criticality Thresholds in the Capacity section of the policy.



Policy Workspace: Workload Automation Details

You can set the workload automation options for your policy, so that VCF Operations can optimize the workload in your environment as per your definition.

[Edit] TestDev Policy

Configurations / Policy Definition

Workload Automation

Workload Optimization

☐ Balance

Balance will spread workloads evenly over the available resources, but may move workloads more often. This is good for more stable populations.

☒ Moderate

Moderate will minimize workload contention, but will not attempt to move workloads to achieve better balance or consolidation.

☐ Consolidate

Consolidate will place workloads into as few clusters as possible, but allows for less responsive capacity. This is good for populations with steady demand, and may reduce licensing and power costs.

✓ Avoid Performance Issues

✓ As Few Moves as Possible

Cluster Headroom

Headroom provides a buffer of space for the cluster, which may cause a rebalance to occur earlier than it would otherwise.

0

50%

Change Datastore

☐ Do not allow Storage vMotion.

☒ Allow Storage vMotion.

Target Network Policy Setting For WLP

☐ Generate a Target Network mapping

By enabling this setting WLP will generate target network mapping automatically for moving VM workloads.

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Policy Workspace: Configuring Provider Pricing

You can add and assign new pricing cards to vCenter and clusters in VCF Operations. The pricing card can be cost-based or rate-based. You can customize the cost-based pricing card and rate-based pricing card as per your requirement.

[Edit] TestDev Policy

[Configurations](#) / [Policy Definition](#)

Provider Pricing

We couldn't find any currency configured.

Pricing Base Settings

Enable Pricing Engine ☒

Compute Rate

Storage Rate

Network Rate

Guest OS Rate

vCenter Tag Rate

One Time Fixed Cost

Rate Factors

Compute Rate

CPU Rate:

CPU GHz Based ☒ vCPU Count Based

Charge Period

Daily

Charge Based on

Usage

Default Base Rate (per GHz)

0

0

ADD SLAB

...

☐

Greater than or equal

↑

Base Rate ()

Explanation

Fixed Cost

0

0

Memory Rate:

Charge Period

Daily

Charge Based on

Usage

Default Base Rate (per GB)

0

0

Viewing the Effective Policy

In the **Policy** drop-down menu, the **View Policy** option appears in the content pane of the selected object.

The screenshot displays the VMware vSphere interface for a virtual machine named 'ubuntu-02a'. The 'POLICY' dropdown menu is open, showing 'View Policy' (highlighted in yellow) and 'Assign Policy'. A blue arrow points from the 'View Policy' option to the 'Policy Definition' section of the VM's configuration page. The 'Policy Definition' section shows a policy named 'test' with a parent policy of 'Default Policy' and a priority of 1. The 'test' policy is selected in the left-hand pane. The right-hand pane shows the 'Metrics and Properties' and 'Alerts and Symptoms' sections. The 'Metrics and Properties' section displays a table with columns 'Self' and 'All' for various metrics. The 'Alerts and Symptoms' section shows a 'Remaining' metric with a value of 56% (7.68 GB) and a note 'Most constrained by Disk Space Demand'.

Metric	Self	All
Self	0	0
Self	0	0
Self	0	12
Self	0	0

Assigning a Policy for a Single Object

In the **Policy** drop-down menu, the **Assign Policy** option appears in the content pane of the selected object.

The screenshot displays the VMware vSphere Client interface. On the left, the 'Inventory' pane shows a hierarchy of objects, with 'sa-db-01' selected. The main pane shows the 'Summary' tab for 'sa-db-01', which is a 'Powered On' virtual machine. A 'Time Remaining' section indicates '> 1 Year'. Below this, 'Utilization' and 'Performance' sections are visible. A 'POLICY' drop-down menu is open in the top right corner, showing 'View Policy' and 'Assign Policy' options. A blue arrow points from the 'Assign Policy' option to the 'Assign Policy' dialog box. The dialog box shows the object name 'sa-db-01', current policy 'TestDev Policy', and assignment type 'Direct'. It lists available policies under 'Base Settings' and allows selecting the policy to apply. The 'Apply policy changes to' section is set to 'Only this object'.

Search for an object or select a category from the list below; like metric, feature, dashboard and more ...

Inventory BASIC VIEW

sa-db-01 ACTIONS

Summary Metrics Logs Alerts Topology Capacity Environment

sa-db-01

Powered On

IP Address: 172.20.10.71

Number of virtual CPUs: 2

Memory: 2 GB

Disk Space: 16 GB

VMware tools: Tools Version 12.5.0, Running

Time Remaining > 1 Year

Utilization

CPU Usage 16.53 MHz

Performance

CPU Queue 0.033

POLICY

View Policy

Assign Policy

Assign Policy Virtual Machine

Object name: sa-db-01

Current Policy: TestDev Policy

Assignment Type: Direct

Select policy to apply:

Base Settings

Config Wizard Based Policy

Default Policy

Foundation Policy

NSX Security Configuration Guide

Policy for Virtual Machines - Risk Profile 1

Apply policy changes to:

Only this object

Include child objects

CANCEL OK

Assigning Policies

You can assign policies to your environment to activate controls and view and manage your object assignment scope.

Policy Assignment

Configurations / Policy Assignment

Visualization Type: Fixed

Inactive ☐ Active ☒

Type Policy Name

TestDev Policy

Priority: 1

Directly Assignments: 1

Custom Groups: 0

Affected Objects: 1

Default Policy

Priority: Default

Directly Assignments: 0

Default Assignments: 558

Custom Groups: 0

Affected Objects: 577

Selected Policy: None

All Objects

Drag and drop items from the list below to assign to a policy.

Inventory

Custom Groups

Type here to apply filters

<input type="checkbox"/>	Name
<input type="checkbox"/>	sa-m01-vc01
<input type="checkbox"/>	sa-m01-vcopsfm01
<input type="checkbox"/>	esx-3.vcf.sddc.local
<input type="checkbox"/>	sa-wld01-vc01
<input type="checkbox"/>	sa-m01-vcopsoc01
<input type="checkbox"/>	sa-wld01-nsxt01
<input type="checkbox"/>	sa-m01-nsxt01
<input type="checkbox"/>	sa-m01-sddc01
<input type="checkbox"/>	esx-4.vcf.sddc.local
<input type="checkbox"/>	sa-app-01
<input type="checkbox"/>	sa-m01-vcops01
<input type="checkbox"/>	sa-db-01
<input type="checkbox"/>	esx-2.vcf.sddc.local
<input type="checkbox"/>	vCLS-df180142-1167-2780-5d8e-940008a27...
<input type="checkbox"/>	EDU-cl01-ds-vsan01
<input type="checkbox"/>	esx-1.vcf.sddc.local
<input type="checkbox"/>	sa-m01-vcfa-h2zzq
<input type="checkbox"/>	vCLS-61c50142-eda6-c9b1-5ba5-1c05aa9393...

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Policy Inheritance

You can determine how a policy applies to an object:

- Identify the group or groups of which the object is a member.
- Identify policies that are assigned to these groups.
- Determine the policy that has the highest priority.

The policy with the highest priority is the effective policy for that object.

Importing and Exporting Content

To reuse content between VCF Operations deployments or back up the custom content, use the export and import functions.

You can export and import the following content:

- Policies
- Dashboards
- Views
- Reports
- Alert definitions
- Symptom definitions
- Recommendations
- Super metrics

Lab: Creating Custom Policies

Create custom policies for TestDev Group and VMScale Group:

1. Create the TestDev Custom Group
2. Create the VMScale Custom Group
3. Create the TestDev Policy for Objects in the TestDev Group
4. Create the VMScale Policy for Objects in the VMScale Group
5. Review Policy Assignments
6. Export a Policy

Review of Learner Objectives

- Use policies to analyze information about various object types and objects in your environment
- Configure policies and other components
- Perform the importing and exporting of content