HOL-2601-01-VCF-L

HANDS-ON LABS MANUAL - 2026

Getting Started with VCF Operations

HOL-2601-01-VCF-L

vmware by Broadcom

Table of Contents

HOL-2601-01-VCF-L: VMware Cloud Foundation 9.0 Operations: Getting Started

Want to know the fastest way to get value from VMware Cloud Foundation (VCF) Operations? Take this lab to get quick insight into capacity, troubleshooting, security, and efficiency.

Lab Guidance

Welcome! This lab is available for you to repeat as many times as you want. Use the Table of Contents in the upper right-hand corner of the Lab Manual to jump ahead to any module.

Module	Title	Length	Level
1	Introduction on VCF Operations	30 min	Beginner
2	Getting started with capacity, monitoring and troubleshooting.	30 min	Beginner

Lab Authors:

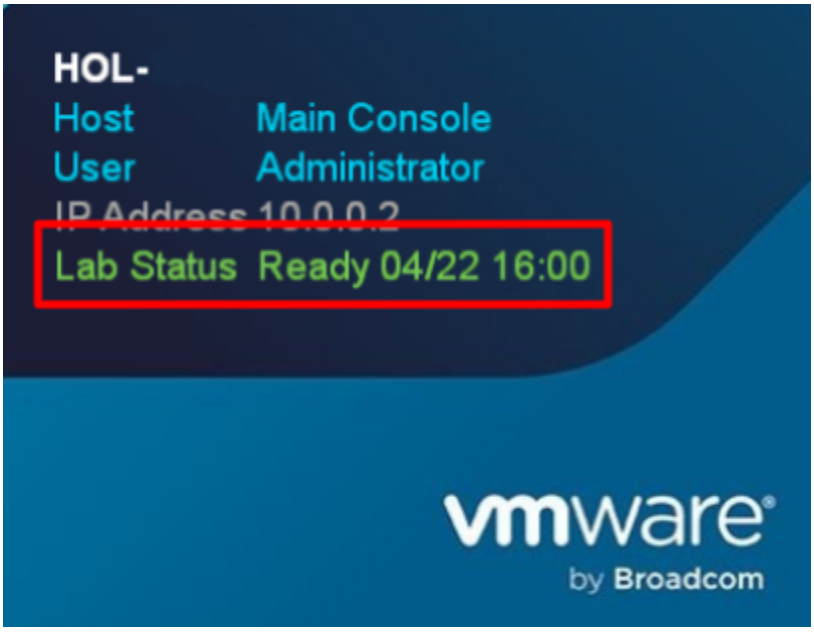
- Module 1 - Ellen Meeus, Technical Adoption Manager, Belgium
- Module 2 - Shannon Fitzpatrick - Staff Technical Adoption Manager, US

Lab Principals:

- Christopher Lewis, Lead VCF Specialist, Solutions Architect, UK
- Katherine Skilling, Senior Architect, Professional Services, UK

First time using Hands-on Labs?

If this is your first time taking a lab you can review the VMware Learning Platform interface before proceeding.



The lab console will indicate when your lab has finished all the startup routines and is ready for you to start. If you see anything other than "Ready", please wait for the status to update. If after 5 minutes your lab has not changed to "Ready", please ask for assistance.

Module 1 - Introduction Overview of VCF Operations

VMware Cloud Foundation (VCF) Operations delivers intelligent operations management with application-to-storage visibility across physical, virtual, and cloud infrastructures. Using policy-based automation, operations teams can automate key processes and improve IT efficiency.

Using data collected from system resources (objects), VCF Operations identifies issues in any monitored system component, often before the customer notices a problem. VCF Operations also frequently suggests corrective actions you can take to fix the problem right away.

For more challenging problems, VCF Operations offers rich analytical tools that allow you to review and manipulate object data to reveal hidden issues, investigate complex technical problems, identify trends, or drill down to gauge the health of a single object. In this exercise, we will log in to VCF Operations, review the user interface, and reference topics covered in later modules in this lab along with other labs in the series.

Login to VCF Operations

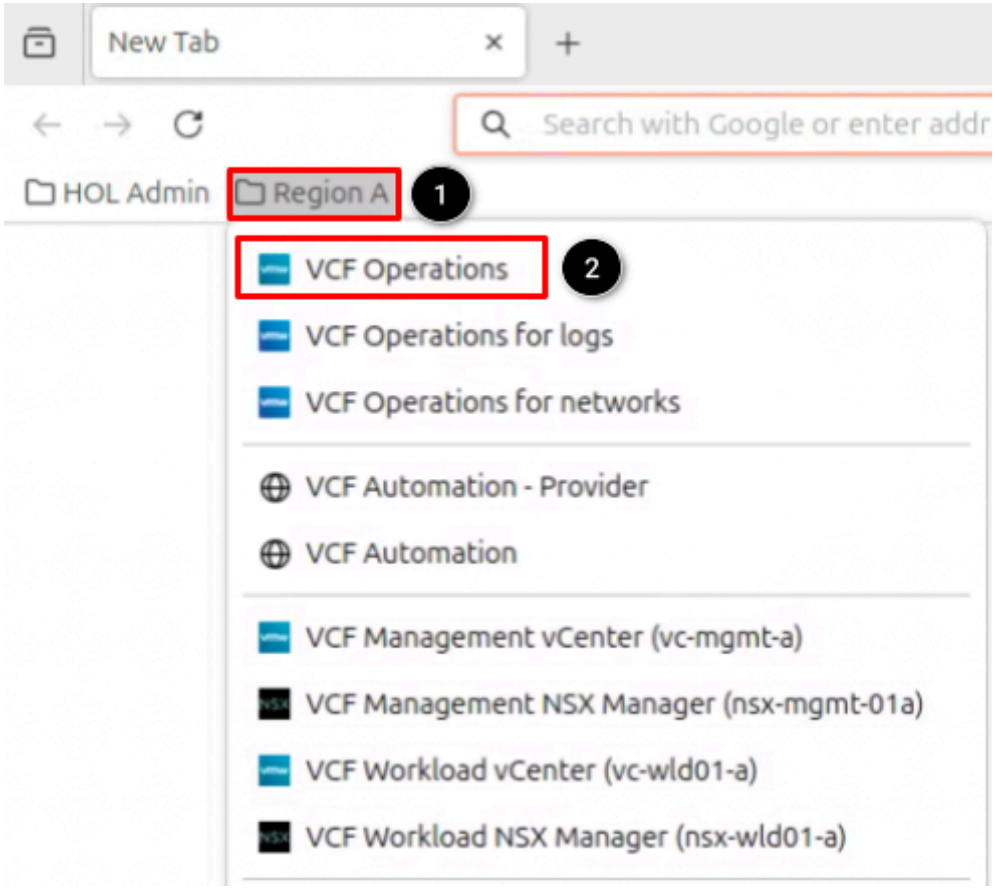
In the following few pages, we will walk through the process for logging in to VCF Operations.

Start Firefox

Open the Firefox Browser from the Linux Task Bar.

1. Click on the Firefox icon to open the browser.

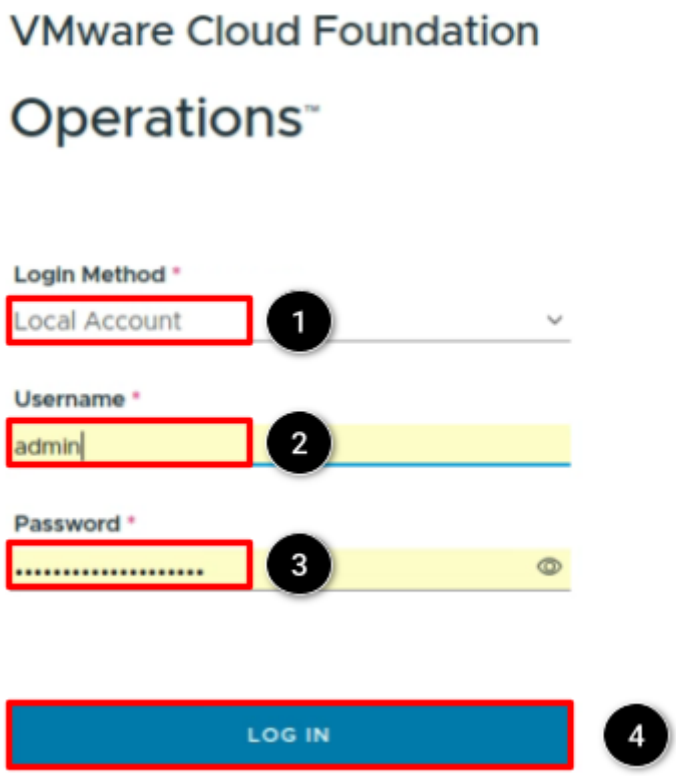
Open VCF Operations Console



Once Firefox has loaded:

1. Click on the **Region A** bookmark folder.
2. Click **VCF Operations**.

Login to VCF Operations Console



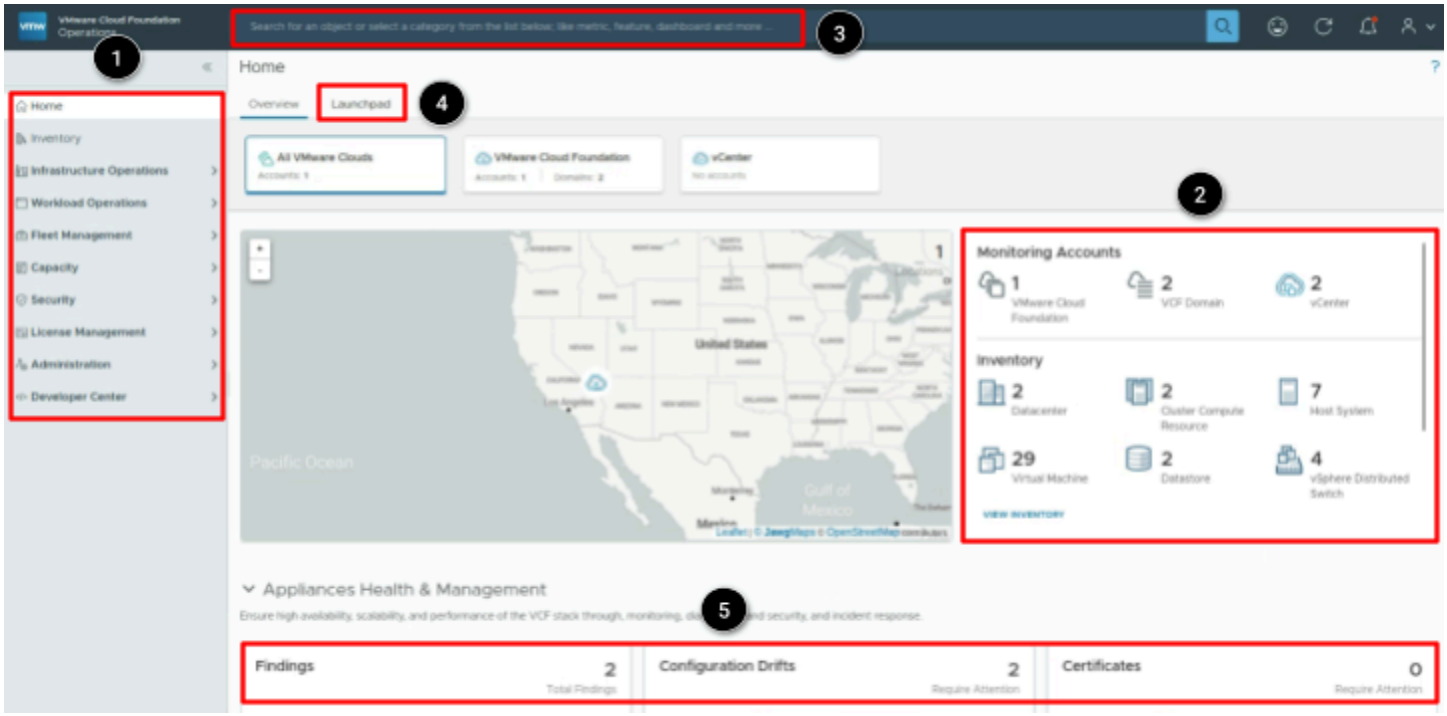
The credentials for **admin** should already be cached in the browser window.

At the VCF Operations login prompt, select the login method and type in the following user and password information:

1. At the Login Method dropdown, select **Local Account**.
2. At the username field, type **admin**.
3. At the password field, type **VMware123!VMware123!**
4. Click **LOG IN**.

VCF Operations Home Screen

The enhanced user interface makes VCF Operations even simpler to use, featuring a use case and persona-based Quick Start page to help us quickly perform operational tasks. After logging in to VCF Operations, we will be taken to the Home screen.

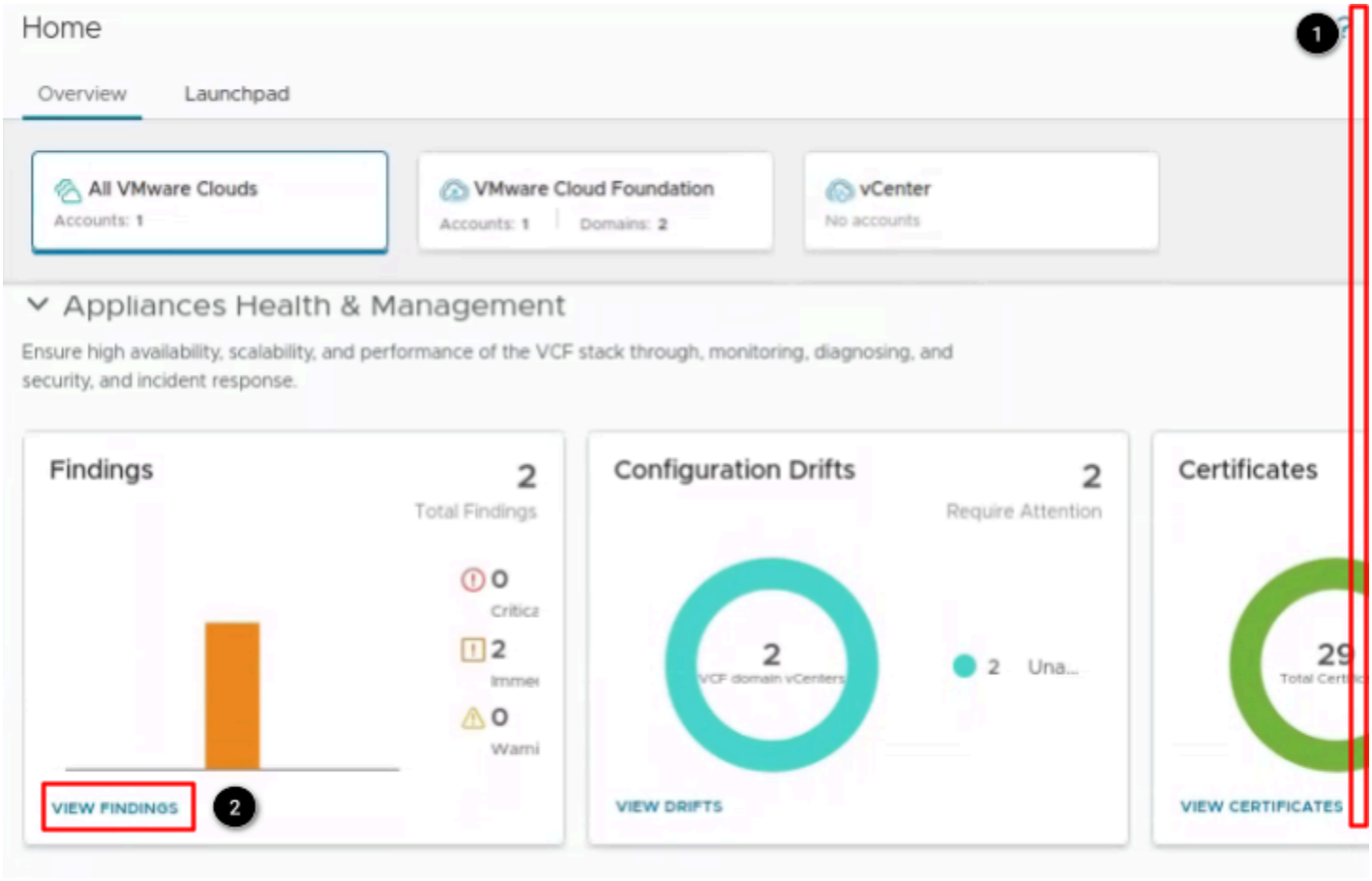


The VCF Operations Home screen includes several components:

1. We use the **Navigation Menu** on the left side to quickly access the various sections of VCF Operations. We can collapse the menu using the >> icon if needed (located in the upper right corner of the highlighted area).
2. In the **Monitoring Accounts** widget we can see the most important inventory numbers and jump from there into the inventory details (we do not click on it now).
3. The top bar includes a **Search Bar** for quick navigation. We will review the search field later in this module.
4. The **Launchpad** tab of the main window provides access to the main functions of the 5 Pillars of Operations. We will review each of these pillars in this exercise.
5. When we scroll down, we will see more and more details regarding the entire VCF environment, like **Findings**, **Configuration Drifts**, **Certificate** information, etc.

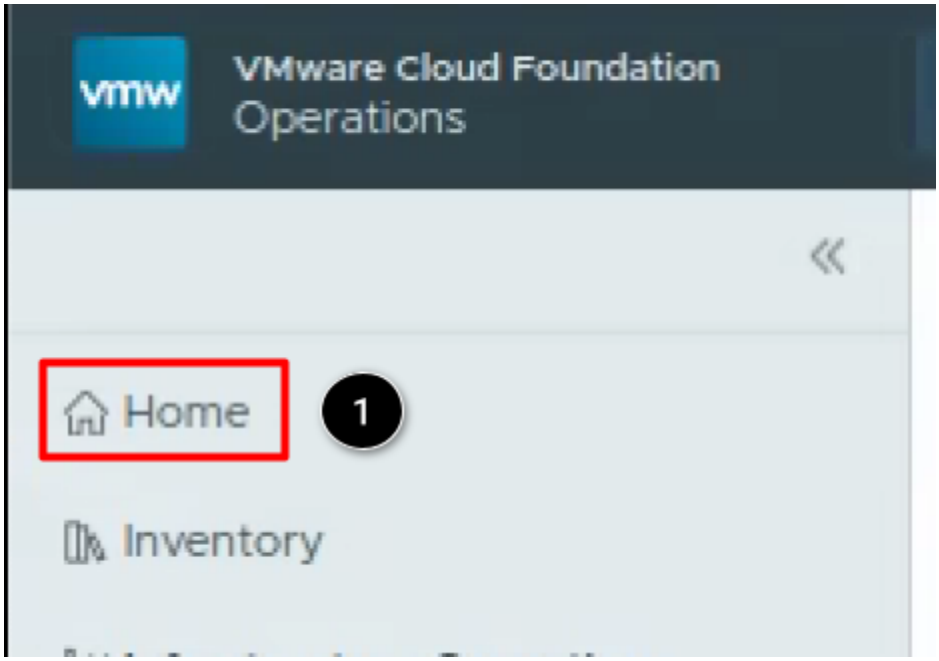
Findings Overview

In the left bottom, we see an overview of all the findings. You can see how many findings have the severity of critical, immediate or warning.



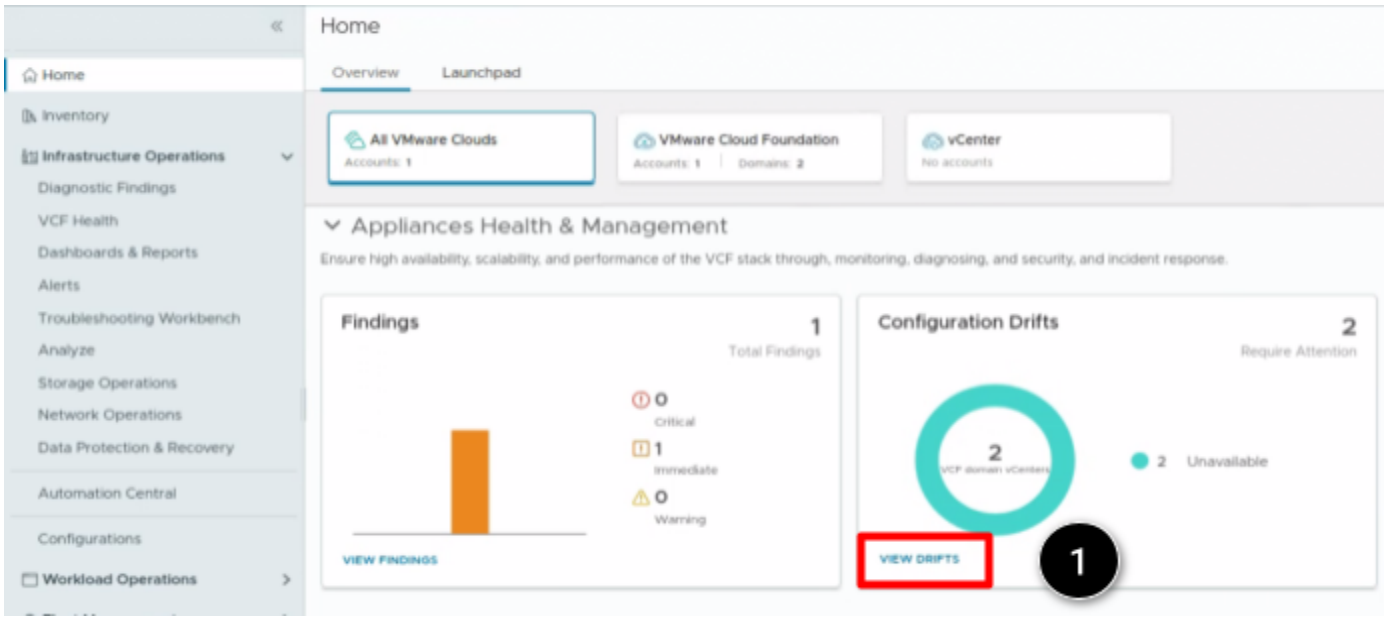
1. **Scroll down** until we see the Findings widget.
2. Click on the **VIEW FINDINGS** to get to the detailed Diagnostics findings dashboard.

Navigate Back to Home Screen



1. Click on **Home** to get back to the Home Screen.

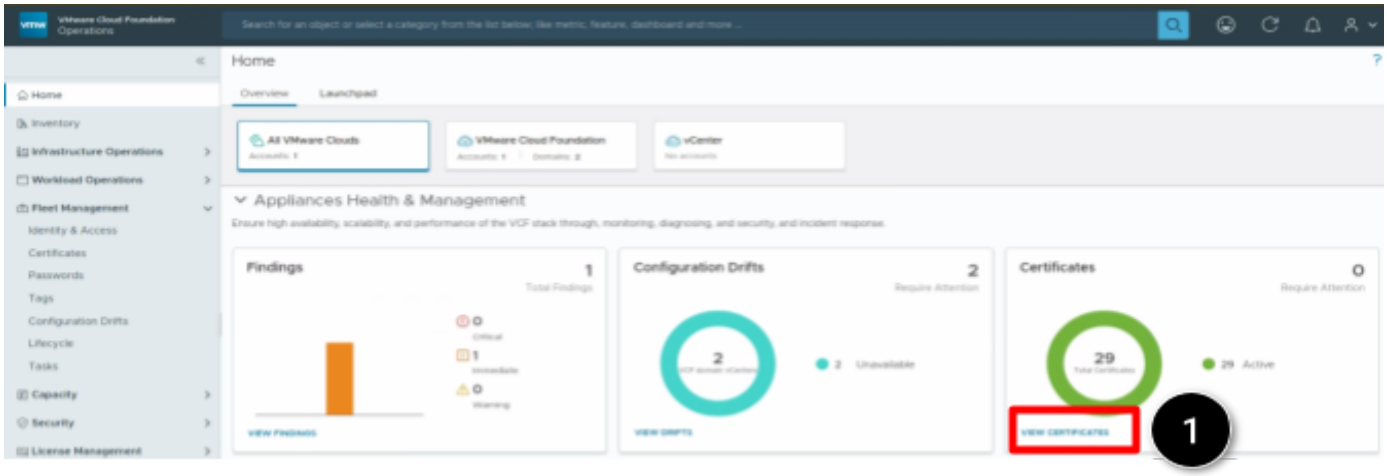
Configuration Drifts Overview



In the middle pane of the Home screen, we see an overview of all detected configuration drifts. We can see how many vCenter instances are compliant, unavailable for configuration drift check or not compliant.

1. Click on the **View Drifts** to get to the detailed dashboard.

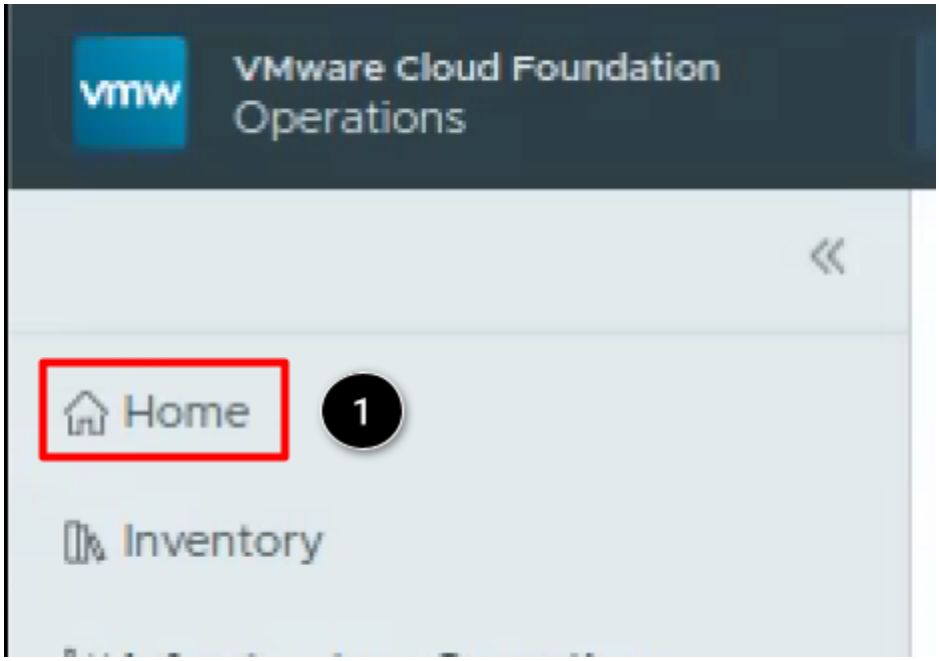
Certificates Overview



In the right pane, we have an overview of the status of all the certificates. We can see if the certificates of all the appliances are correctly working or how many need to be replaced.

1. Click on the **VIEW CERTIFICATES** to get to the detailed dashboard.

Navigate Back to Home Screen



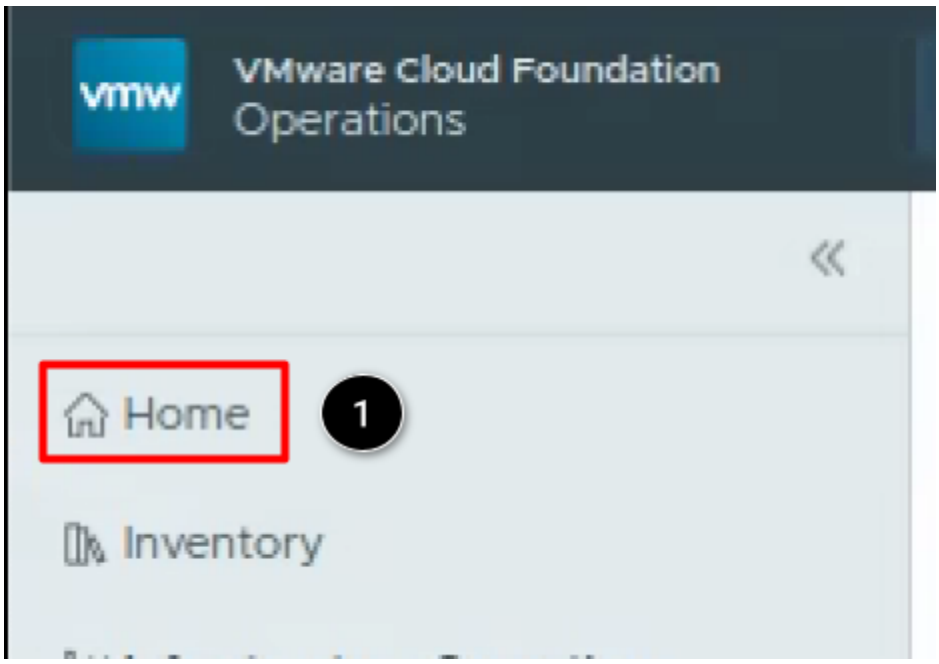
2. Click on **Home** to get back to the Home Screen.

Workload Operations

If we scroll down, we can find the **Workload Operations** widget. Here we find an overall view of your capacity and alerts.
From here we can click on the **VIEW** links in every section to get to the details, if you do this, use the "Navigate Back to Home Screen" step or the back button in the browser to get back to Workload Operations.

1. Click on the **VIEW CAPACITY** to go to the detailed capacity dashboard.
2. Click on **VIEW ALERTS** to go to the alerting dashboard
3. Click on **VIEW COSTS** to go to the cost dashboard.

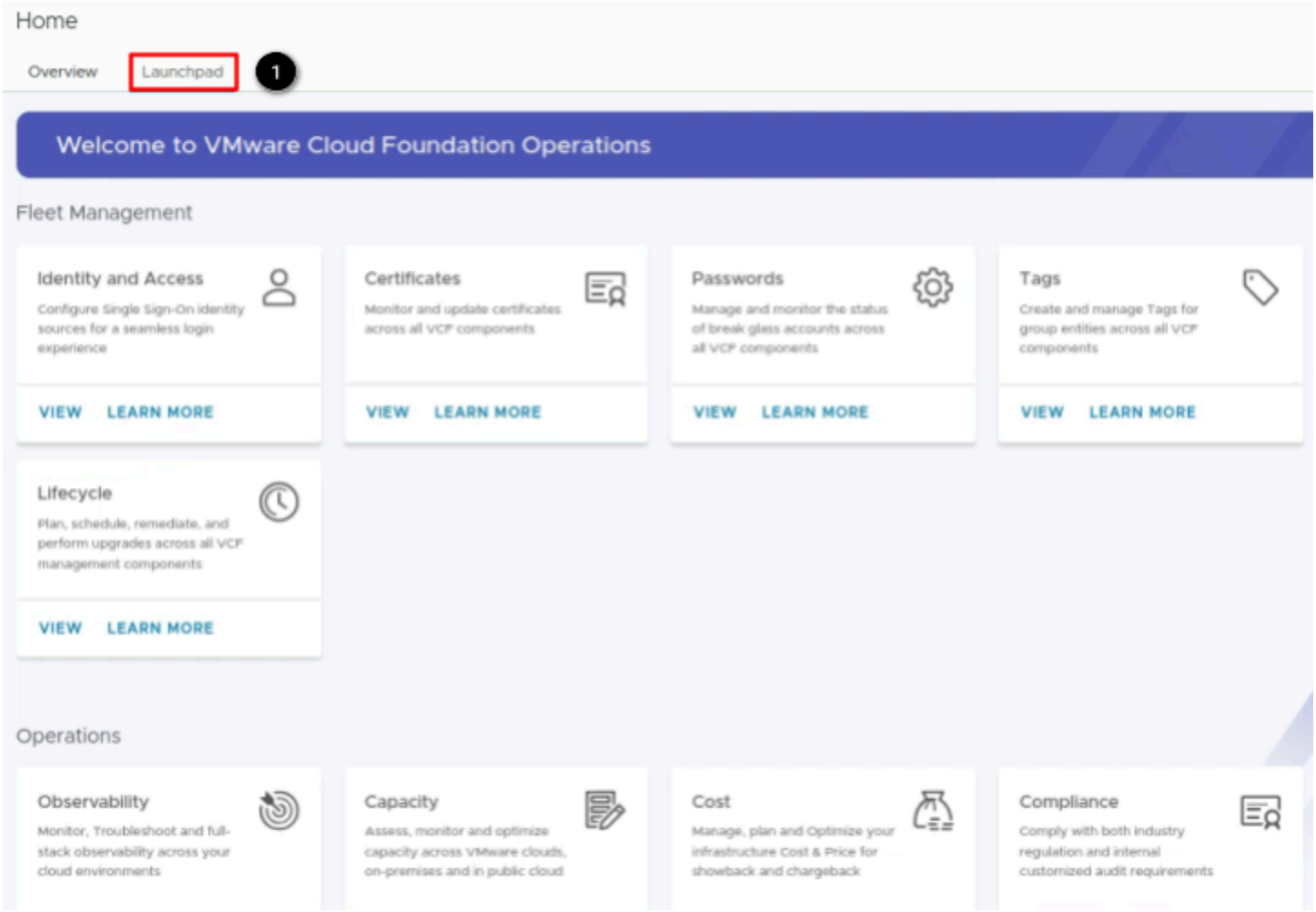
Navigate Back to Home Screen



3. Click on **Home** to get back to the Home Screen.

VCF Operations Launchpad

In the Launchpad we find multiple sections that represent groups of functionality.
Note: If we click on any of the tiles we will be taken to a page with more details. To return to this Launchpad tab on the home screen, we can click Home in the navigation menu on the left, as shown in the "Navigate Back to Home Screen" step in this module.



1. Click on **Launchpad**.

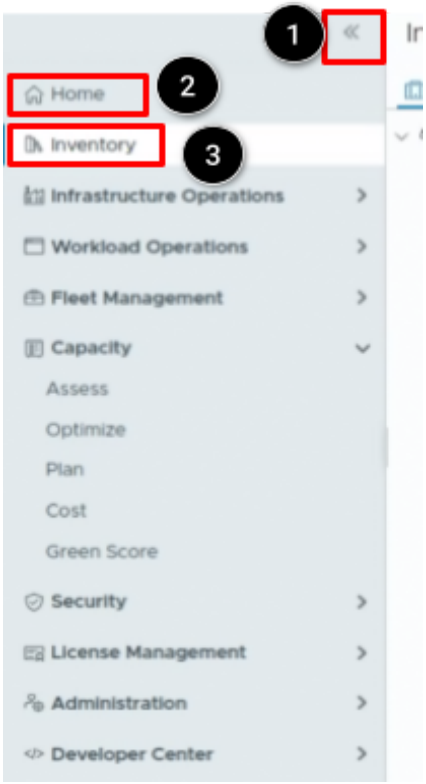
We see the following function groups:

- **Fleet management**: This consolidates access to essential administrative tasks for the infrastructure and management components like lifecycle, certificates, Identity management (SSO), passwords, configuration drifts, tags.
- **Operations**: Here you can find the functionalities for monitoring the operations across your environment. From observibility to Network operations, to Security operations and much more.
- **Selfservice private cloud:** enables users to provision and manage their own virtual infrastructure resources—like virtual machines, storage, and networks—without needing to go through IT for every request.
- **Virtualization infrastructure:** This consolidates access to your entire infrastructure of VCF/vsphere/vsan/NSX and Kubernetes
- **Public cloud:** Here you can find all your information about your infrastructure that you are running in any of the hyperscalers clouds

Using the VCF Operations Navigation Menu

The navigation menu on the left side of the VCF Operations interface will be used throughout the labs in this series. Let's review this navigation menu now.

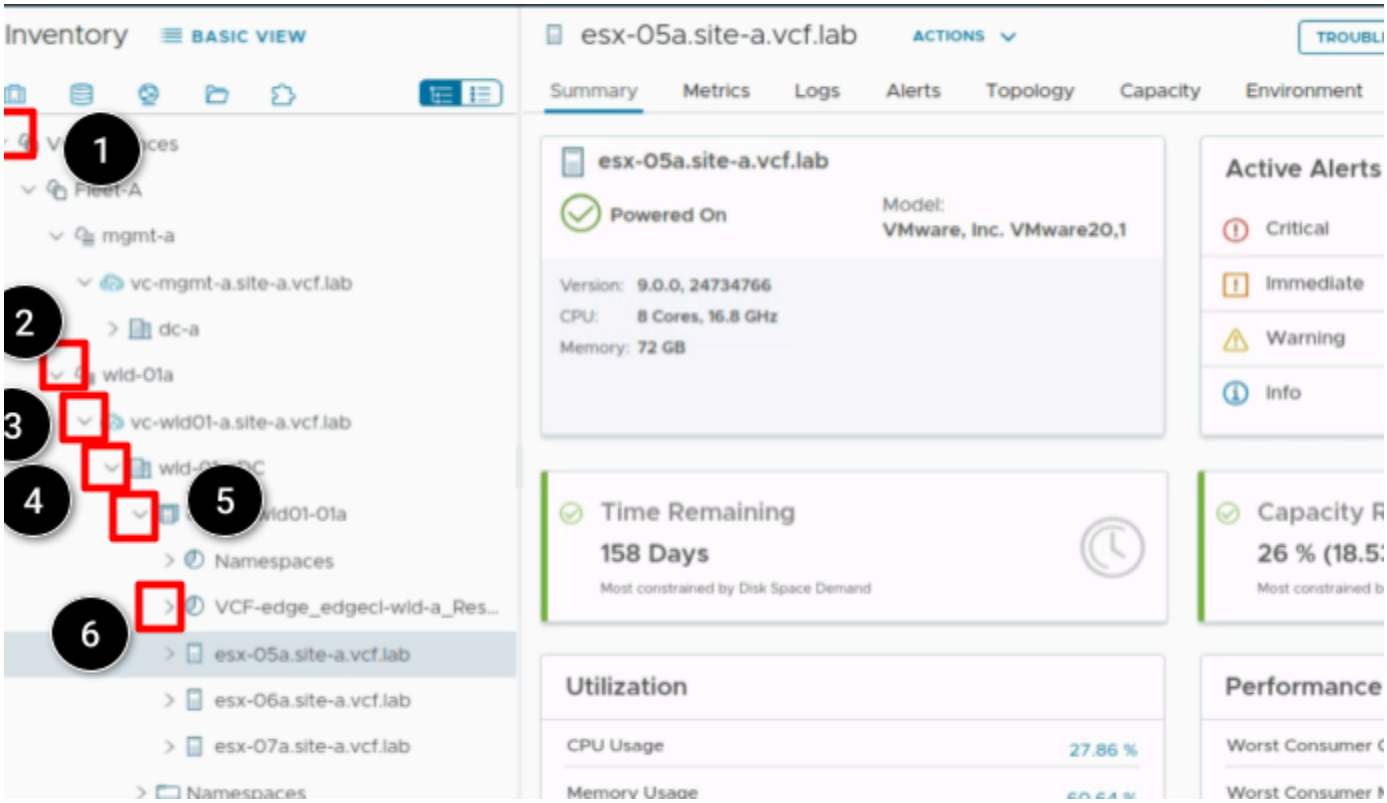
Using the Navigation Menu



The navigation menu includes several categories for easy access to all of the VCF Operations functionality.

1. To **collapse** the navigation menu, click the << icon at the top. To expand the menu again, click the >> icon (not shown).
2. We can return to the VCF Operations Launchpad at any time by clicking **Home** in the navigation menu.
3. The menu is divided into several **categories**. We can expand each category by clicking on the > next to the category name, or on the name itself. Click on Inventory to expand this category.

Using the Inventory



The Inventory is a collection of all objects discovered and monitored by VCF Operations. We can navigate this inventory in a tree view similar to the one found in the vSphere Client.

1. Under VCF Instances, click the > next to Fleet-A to expand the inventory.
2. Click the > next to wld-01a to expand the inventory for this workload cluster.
3. Click on the > next to **vc-wld01-a.site-a.vcf.lab** to expand the inventory of the vCenter.
4. Click on the > next to **wld-01a-DC** to expand the inventory of the virtual Datacenter.
5. Click on the > next to **cluster-wld01-01a** to expand the inventory of the Cluster.
6. Click on one of the ESXi hosts, **esxi-05a.site-a.vcf.lab** in this example. This will open the object view for this host.

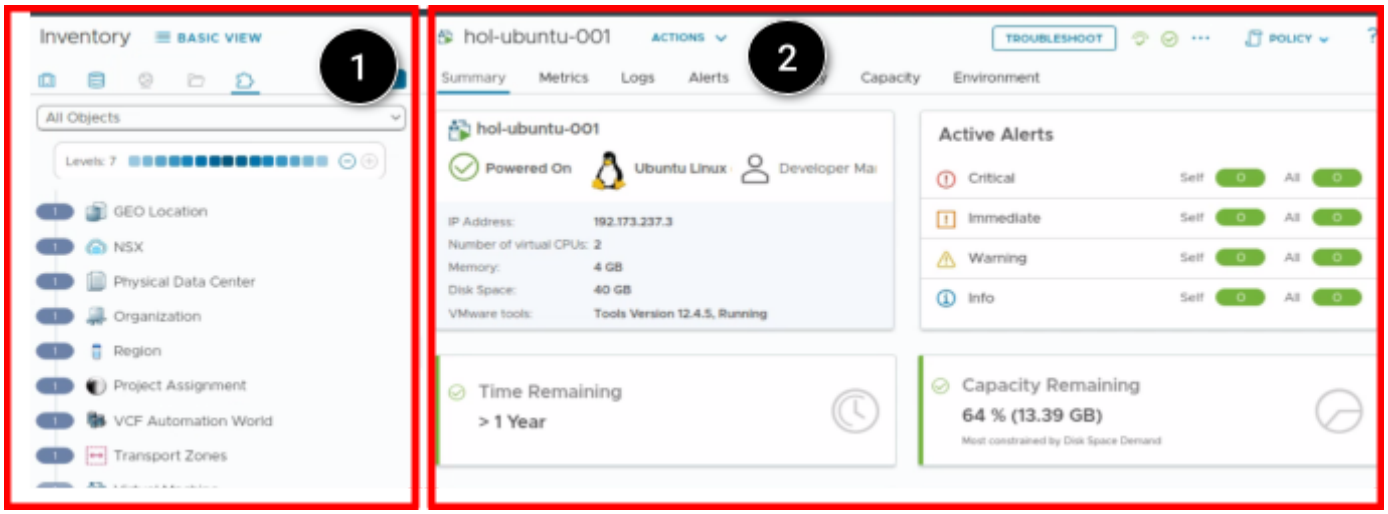
Using the Search Bar and Object Detail

1. The search field is at the top of the VCF Operations interface. Using this field we can quickly search for objects in the VCF Operations inventory.

1. Type **Ubuntu** into the search field, but do not press Enter.
   Note that several types of objects are displayed as possible options. In this list, we can see:
   - A ubuntu OS monitoring object
   - A load balancer virtual machine.
   - A load balancer pool.

2. Click on **hol-ubunut-001**.

Object Detail Page

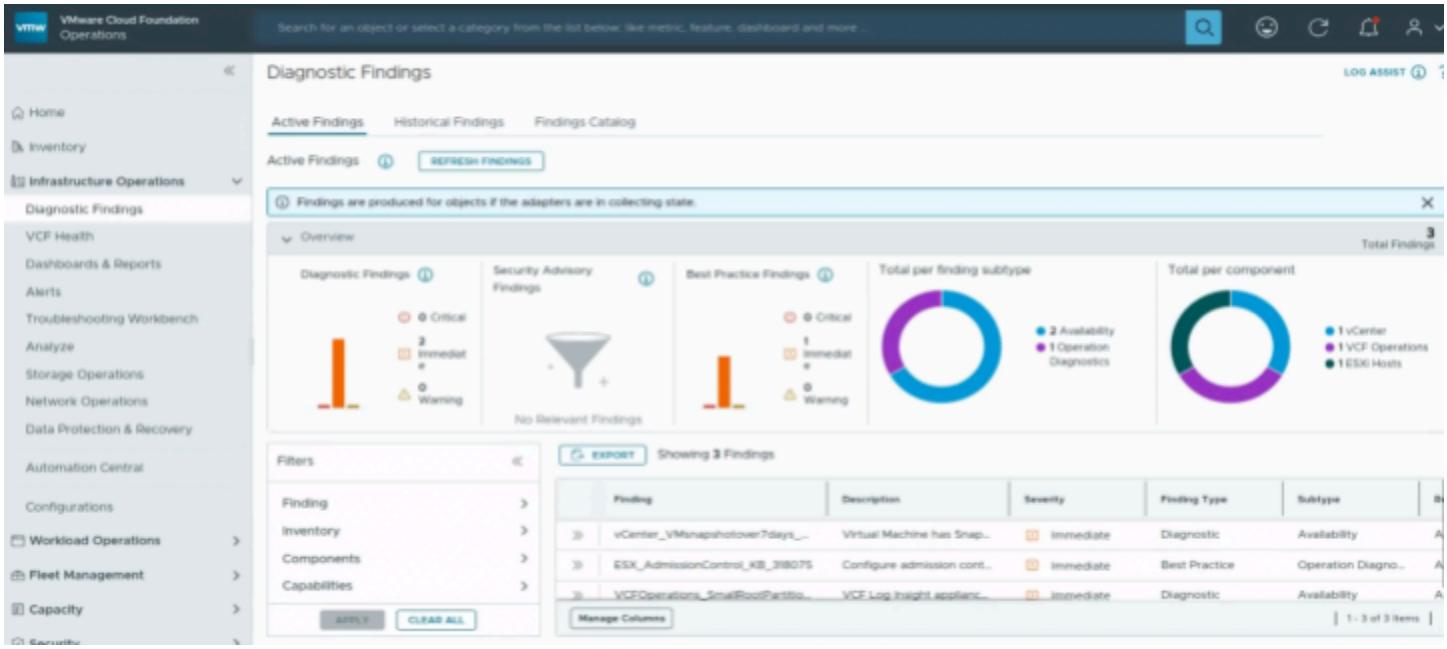


The object detail page includes detailed information on the object in the VCF Operations inventory (in this case, the hol-ubuntu-001 virtual machine). We could have navigated through the Object Browser to find this VM, but the search field allows us to locate it quickly.

1. The **Object Browser** view allows for visibility into the entire environment. By navigating this view we can view additional information on which infrastructure resources this VM is using, which objects it contains, as well as the health of each. This can be useful in troubleshooting issues that may be impacting this VM.
2. The **Summary** tab for this object shows several tiles providing base information about the VM, the status of alerts related to this VM, and information on capacity remaining based on existing utilization.

We can scroll down through the Summary tab to view additional information, or click any of the other tabs to view more detail for this object. Several of these tabs will be covered in later modules in this lab, as well as later labs in the series.

Infrastructure Operations Overview

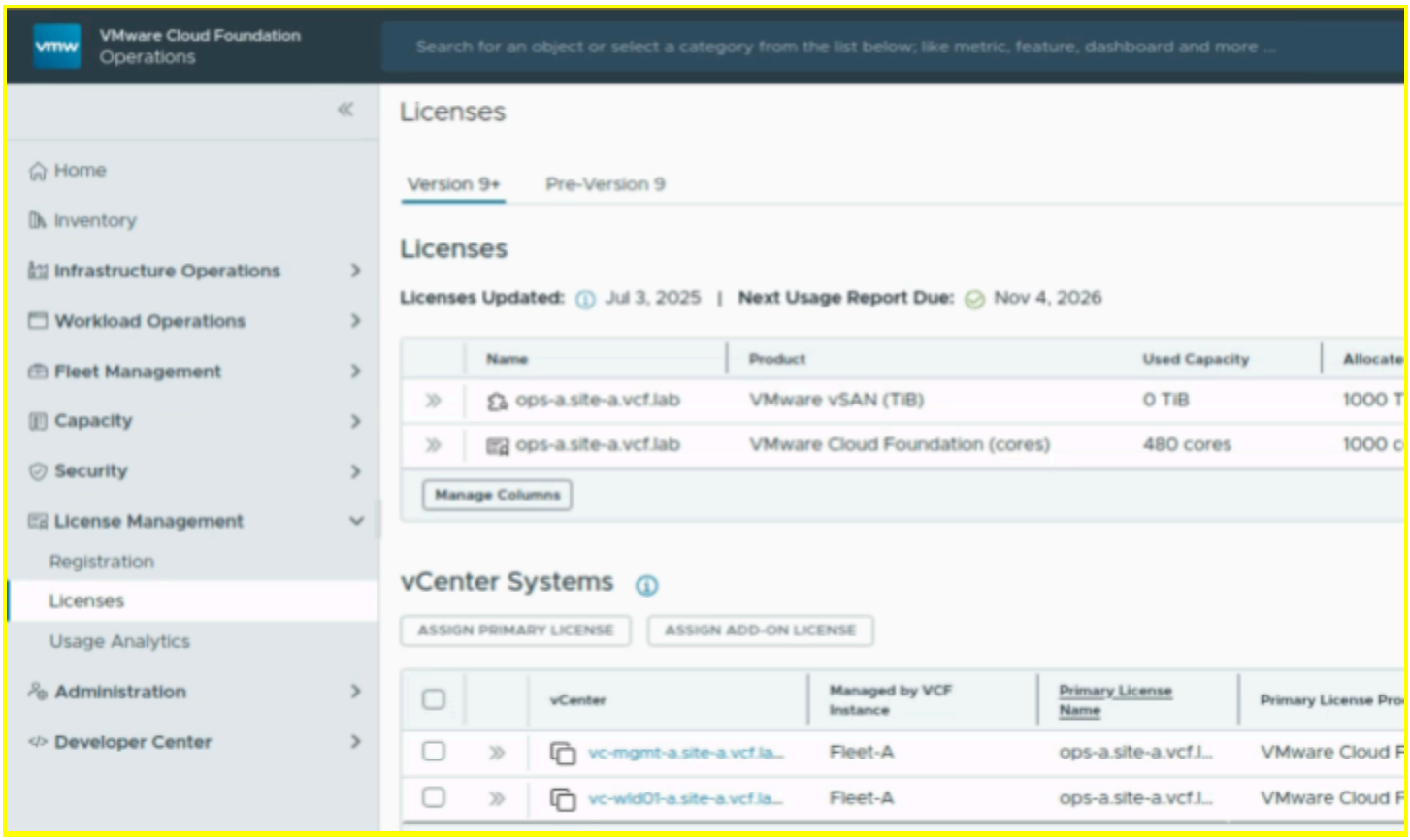


In the Infrastructure Overview navigation menu includes several categories for the health of your environment.
You have the following views:

- **Diagnostic findings**: offers centralized, proactive health insights for your entire VCF infrastructure. It brings together issue detection across multiple VMware products and capabilities—like vCenter, ESXi, vSAN, NSX, vMotion, snapshots, VM provisioning—into a single pane of glass
- **Dashboards & Reports :** provide a centralized, visual overview of the health, performance, and capacity of the entire cloud infrastructure managed by VCF
- **VCF Health**: this role is to monitor the overall health and status of the SDDC components managed by VCF.
- **Alerts :** enables proactive monitoring by raising notifications when defined conditions or logs exceed thresholds, helping you detect potential issues early and take action.
- **Troubleshooting workbench**: your central hub to investigate findings, correlate them across components (vCenter, vSAN, vMotion, snapshot, network, logs), and trace root causes quickly using AI/machine learning
- **Analyze:** It specifically enables you to collect, parse, process, and analyze logs from across your VMware Cloud Foundation components using a centralized console
- **Storage Operations:** provide a centralized, visual overview of the storage health, performance, and capacity.
- **Network Operations:** provide a centralized, visual overview of the network health, performance, and capacity.
- **Data Protection & Recovery :** provides a unified, integrated dashboard and orchestration experience for VMware Live Recovery
- **Automation Central:** is a built-in orchestration engine that lets administrators schedule all there jobs in a centralized view.
- **Configurations:** Here you can change all your configuration for your environment through policies configurations, alerts configurations, costs,...

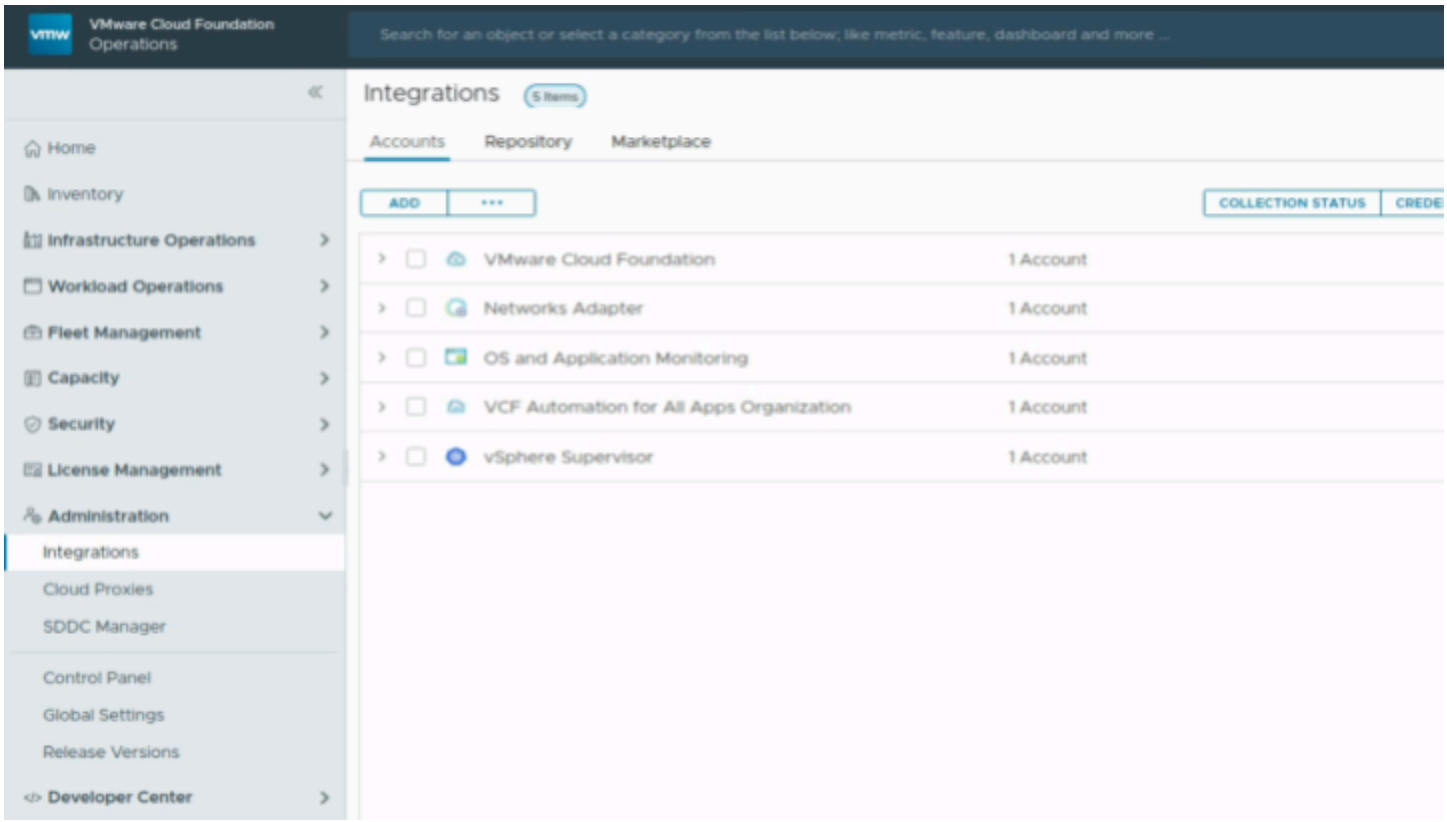
License Management Overview

The License Overview feature functions as your centralized license management hub for the entire VMware Cloud Foundation stack.


VMware Cloud Foundation
Operations
Search for an object or select a category from the list below; like metric, feature, dashboard and more ...
Home
Inventory
Infrastructure Operations
Workload Operations
Fleet Management
Capacity
Security
License Management
Registration
Licenses
Usage Analytics
Administration
Developer Center
Licenses
Version 9+
Pre-Version 9
Licenses
Licenses Updated: Jul 3, 2025 | Next Usage Report Due: Nov 4, 2026
Name
Product
Used Capacity
Allocate
ops-a.site-a.vcf.lab
VMware vSAN (TiB)
0 TiB
1000 T
ops-a.site-a.vcf.lab
VMware Cloud Foundation (cores)
480 cores
1000 c
Manage Columns
vCenter Systems
ASSIGN PRIMARY LICENSE
ASSIGN ADD-ON LICENSE
vCenter
Managed by VCF Instance
Primary License Name
Primary License Pro
vc-mgmt-a.site-a.vcf.la...
Fleet-A
ops-a.site-a.vcf.l...
VMware Cloud F
vc-wld01-a.site-a.vcf.la...
Fleet-A
ops-a.site-a.vcf.l...
VMware Cloud F

Administration overview

The Administration view serves as your centralized hub for fleet-wide administrative controls, governance, and configuration oversight. It brings together core operational management tools across your VMware Cloud Foundation infrastructure.



Conclusion

In this module, we started to explore the VCF Operations interface using the basic navigation functions. We introduced the Search function which gave us the ability to search and quickly locate the objects in the Inventory. We also reviewed the Object Details of a VM to briefly note the depth of detail available in this tool. By reviewing each of the different functions of the VCF Operations interface we can see how comprehensive a toolset it can be for managing our virtual infrastructure.

From here you can:

- Take this quick survey to provide feedback about your experience with VCF 9.0
- Continue with the next lab module.
- Click [vlp:table-of-contents|Show Table of Contents] to jump to any module or lesson in this lab.
- End your lab and return in the future.

Module 2 - Getting started with capacity, monitoring and troubleshooting.

Managing and estimating available capacity in a dynamic virtualized environment can be a challenge. Aria Operations provides several out-of-the-box dashboards that provide additional insights into available capacity as well as estimates of time remaining based on observed growth in the environment.
In this module, we will begin to review some of the preconfigured capacity dashboards in Aria Operations.

Login to VCF Operations

In the following few pages, we will walk through the process for logging in to VCF Operations.

Start Firefox

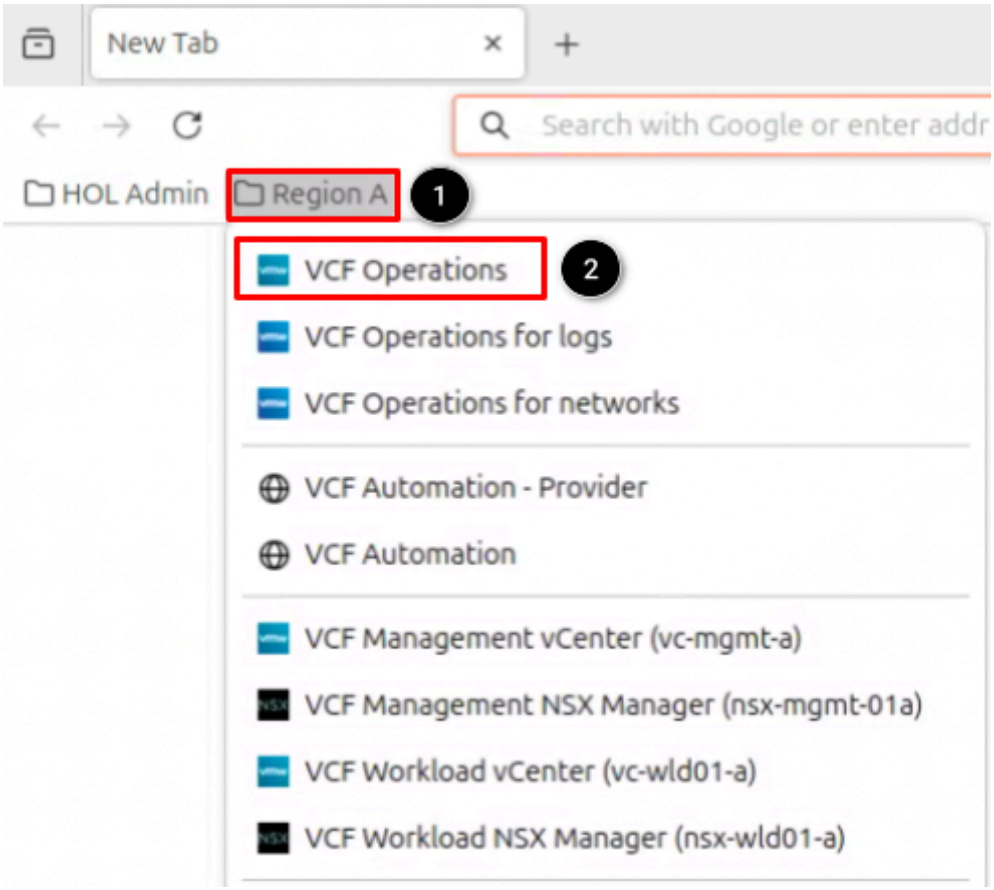
Open the Firefox Browser from the Linux Task Bar.

Click on the **Firefox** icon to open the browser.

Open VCF Operations Console

Once Firefox has loaded:

Click on the Region A bookmark folder.
Click **VCF Operations**.

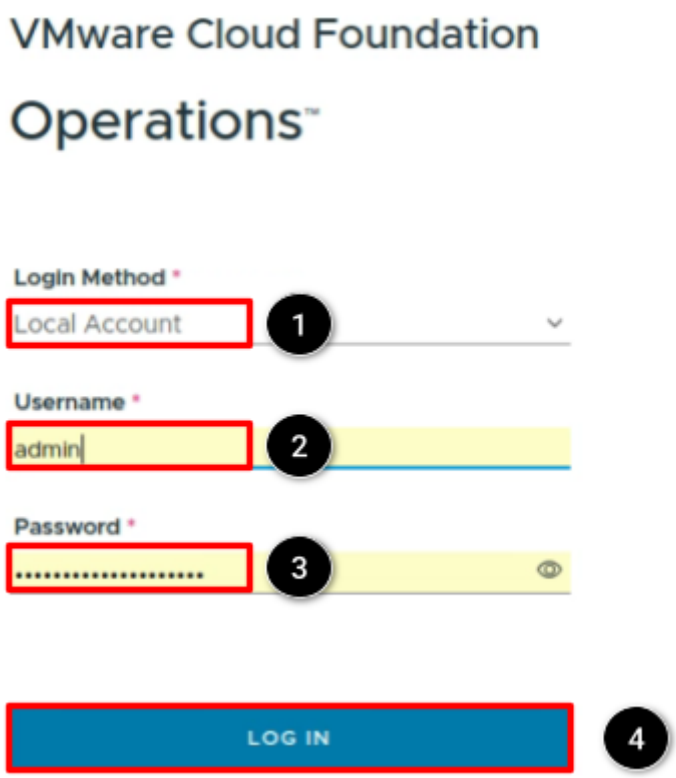


Login to VCF Operations Console

The credentials for admin should already be cached in the browser window.

At the VCF Operations login prompt, select the login method and type in the following user and password information:

At the Login Method dropdown, select **Local Account**.
At the username field, type **admin**.
At the password field, type **VMware123!VMware123!**
Click **LOG IN**.



Capacity Overview

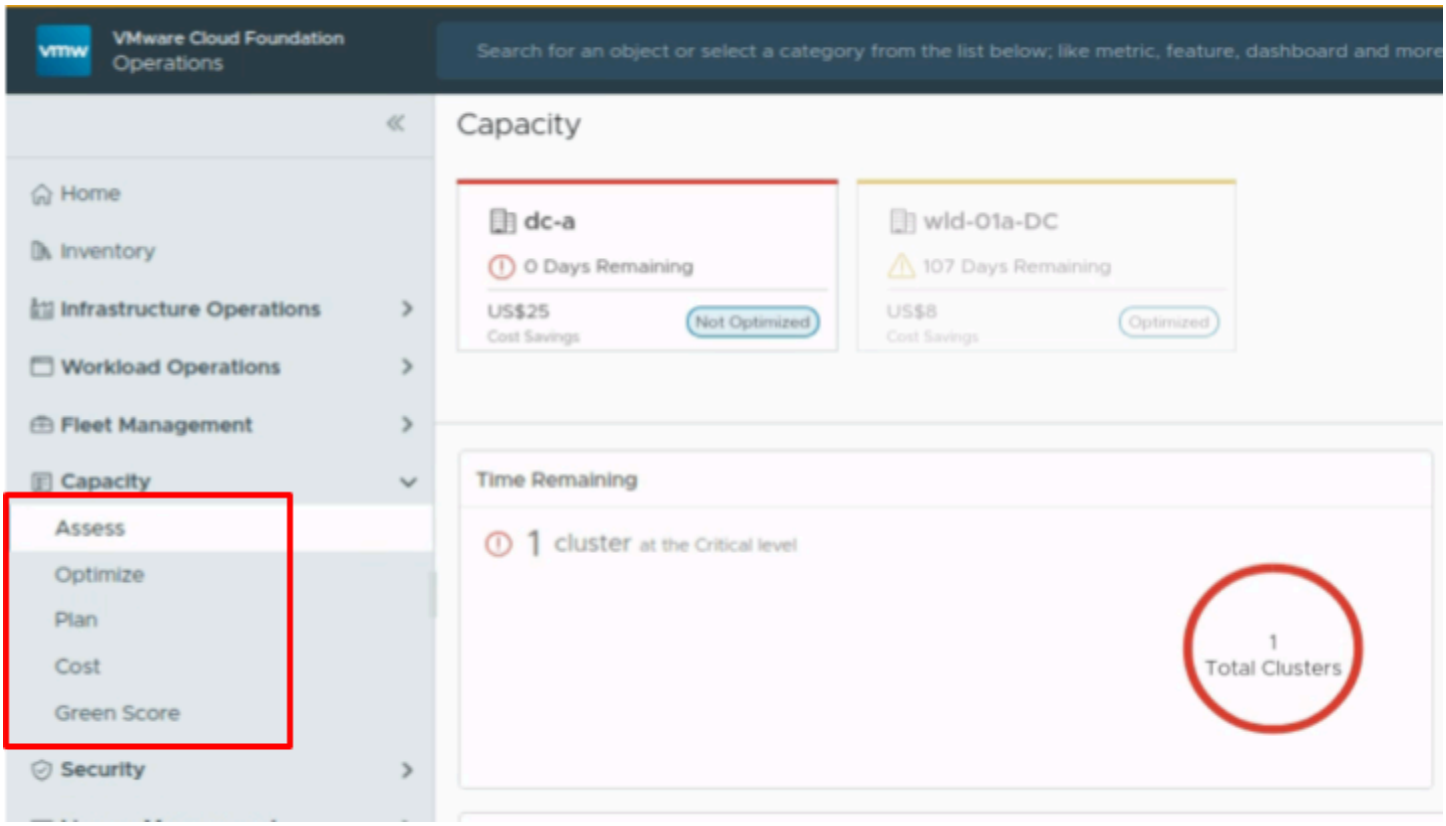
Capacity quantifies the resources used, resources remaining, and opportunities to reclaim unused resources. Projections of the demand provide a proactive view of capacity. The Capacity Dashboards show capacity in terms of time remaining before capacity is projected to run out, the amount of capacity remaining, the number of VMs that may fit in the remaining capacity, and reclaimable resources that can increase the available capacity.

How to locate the Capacity Dashboards

To locate the Capacity Dashboards, do the following from the Home Screen:

1. Select **Home** - **Overview**
2. Go down to **Workload Operations**.
3. View **Capacity**

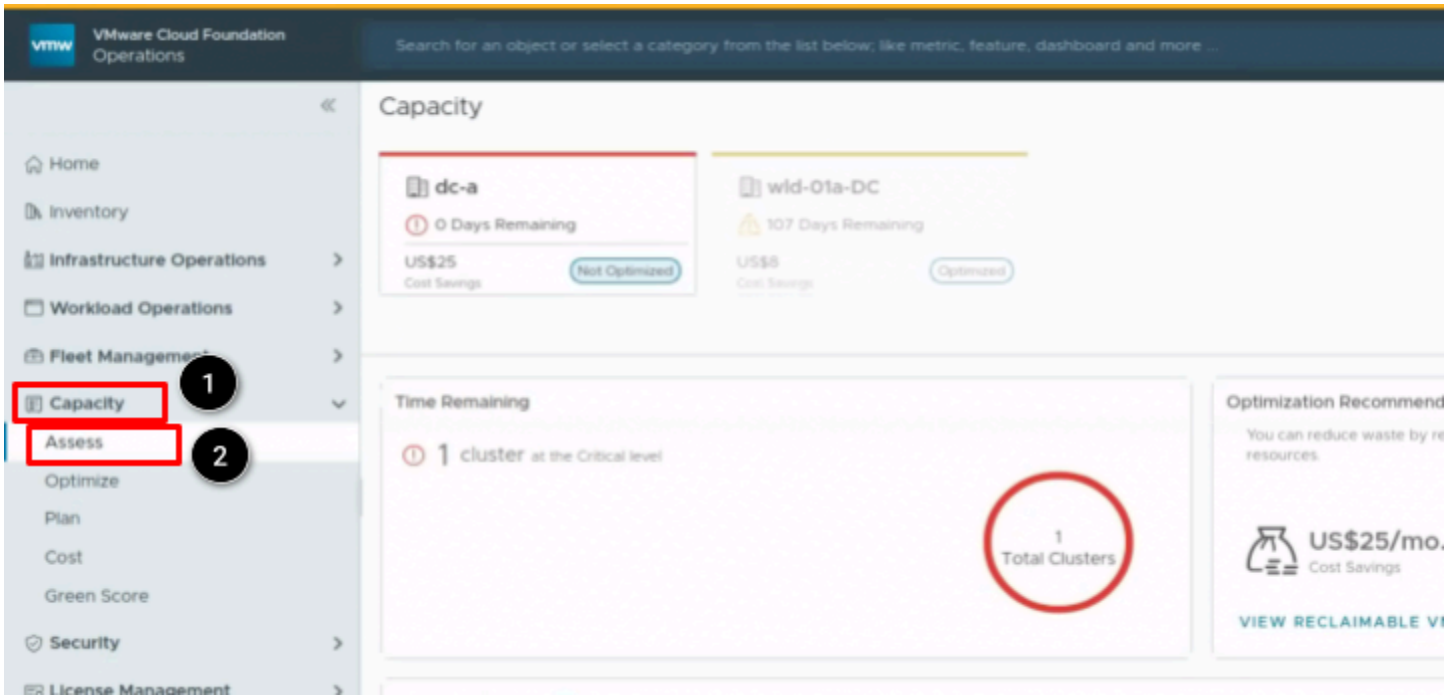
Capacity Overview



In the Capacity navigation menu,, there are five main components: Assess, Optimize, and Plan, Cost and Green score. We won't review each component in-depth in this lab, but below is a general overview of each:

1. Assess -- Use this component to determine if there is sufficient capacity in our VMware Cloud environment for current and future workloads.
2. Optimize -- Use this component to optimize our data center for optimal workload performance by ensuring our workloads have the resources they need (includes the Rightsize and Reclaim features).
3. Plan -- Use this component to plan for the addition/removal of capacity or workloads in the environment, as well as evaluate the possibility of moving workloads across supported clouds.
4. Cost - Use this component to give an overview of your costs in the datacenter.
5. Green Score - Here you can see an overview of power consumption and carbon footprint.

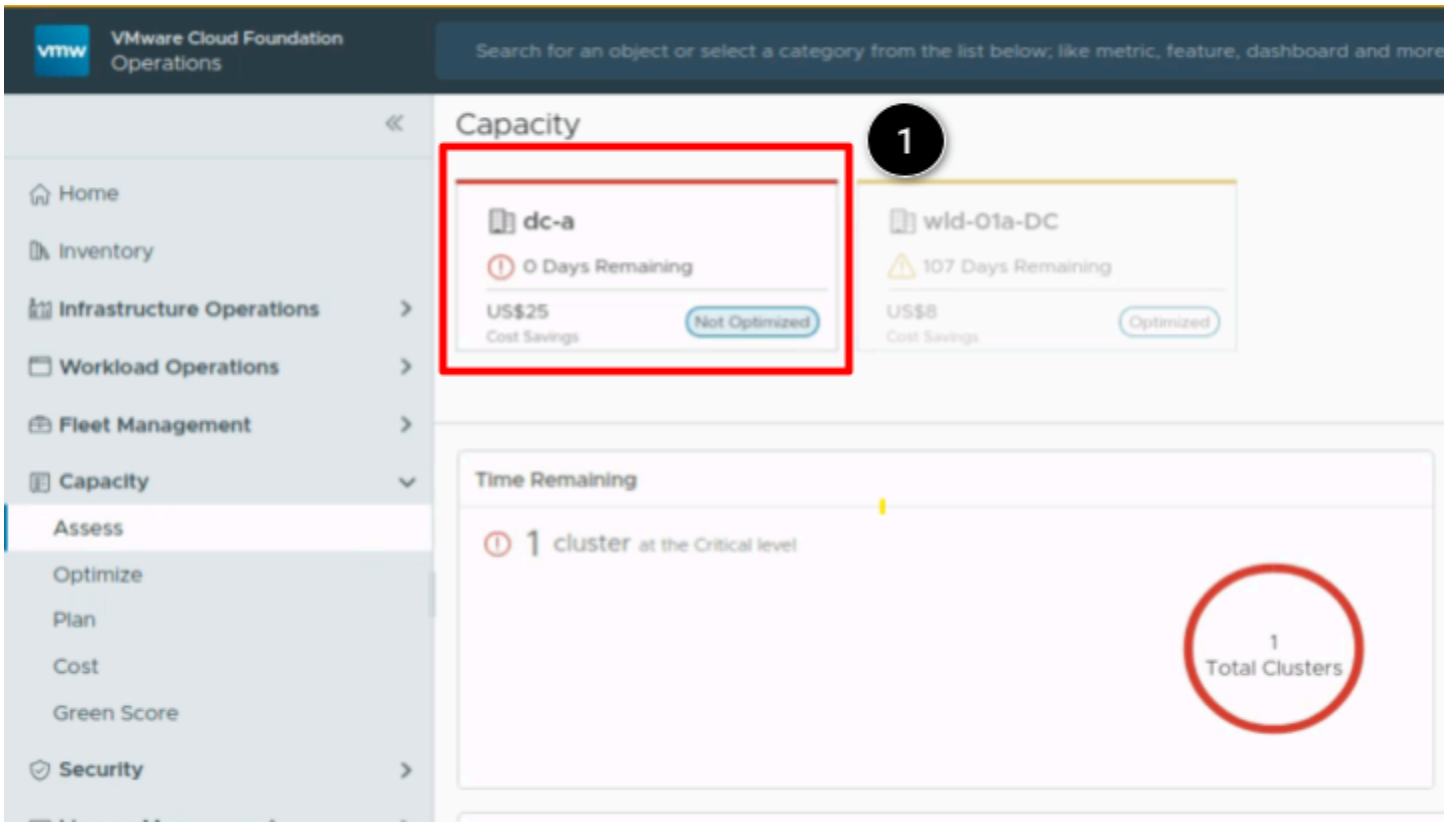
Open the Assess Capacity Component



The Capacity Pillar in VCF Operations is designed to assess workload status and how much capacity is remaining in data centers across our environment. To access the Capacity Pillar, do the following:

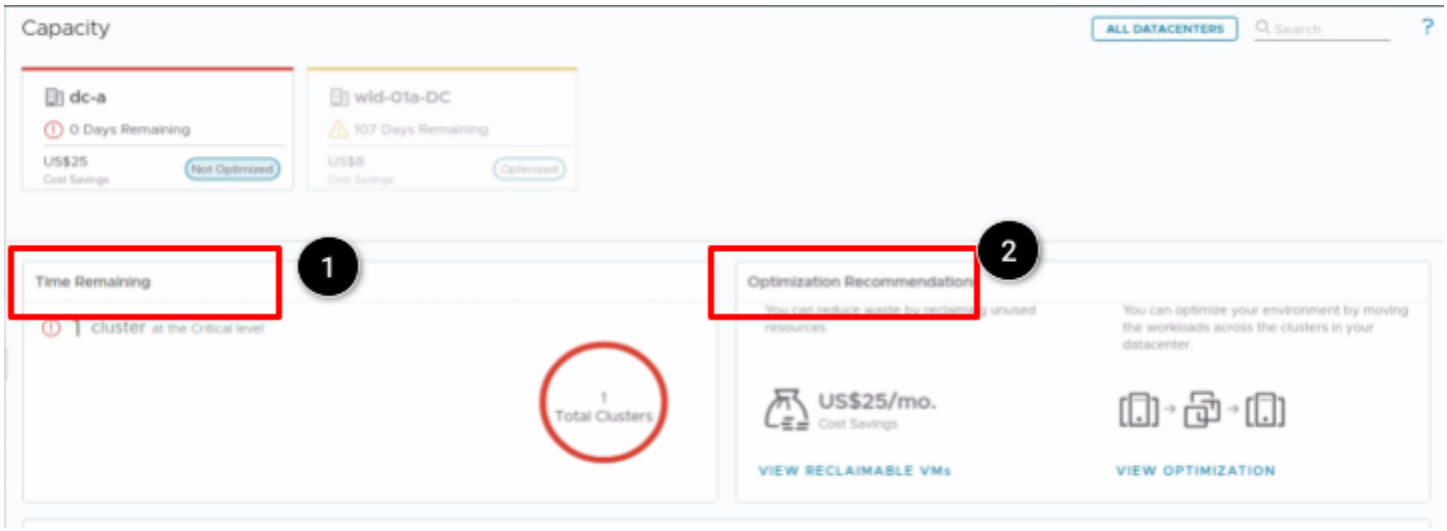
1. Select Home.
2. Select Capacity in the right pane

Assess Capacity - Select a Datacenter



1. In the Assess Capacity window, select the dc-a datacenter (notice the "buildings" icon to the left of the name) as this will be the one we analyze in the lab.

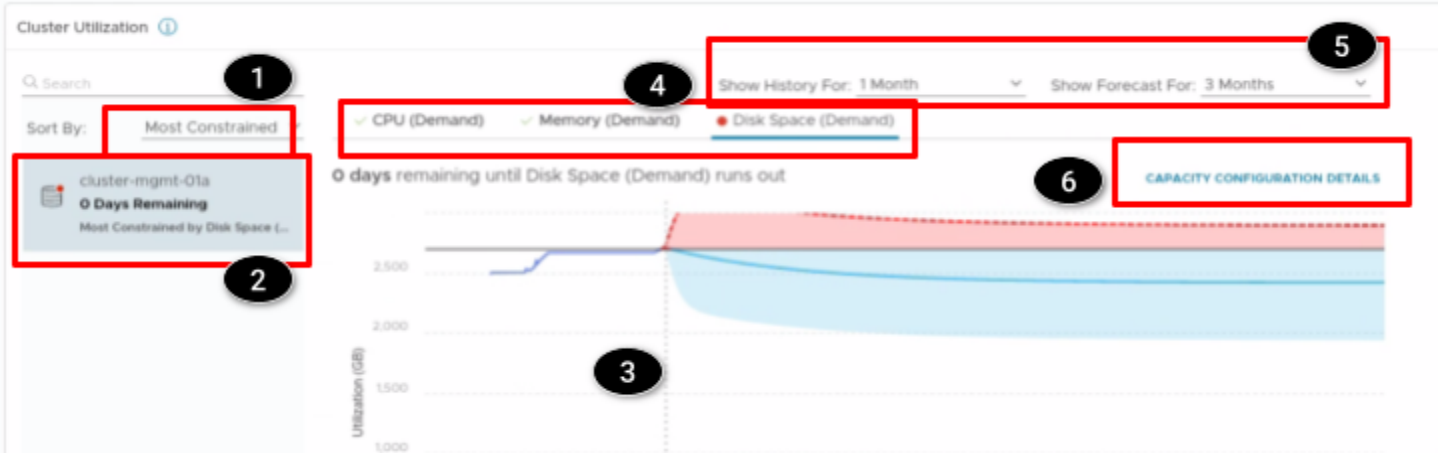
Datacenter Capacity Time Remaining and Optimization Recommendations



The first two components in the Datacenter Capacity window are Time Remaining and Optimization Recommendations. Below are brief overviews of both:

1. Time Remaining -- using advanced calculations, Aria Operations determines if any additional resources need to be added to maintain the current state of the environment. Note: Depending upon the available resources of the lab, we may see different results than what is shown in this example.
2. Optimization Recommendations -- this component identifies available resources that could be reclaimed and provides an associated cost savings estimate. Note: Depending upon the available resources of the lab, we may see different results than what is shown in this example.
3. Use the slide bar on the right side to scroll down and see other options which are discussed on the next page.

Datacenter Capacity Cluster Utilization



As we scroll down further on the Datacenter Capacity page, notice the Cluster Utilization widget and how it provides a graphical chart estimating the time remaining of current resources (at current rate of growth). Additionally, the chart shows a history of resources for the past month and a forecast of resources for the next three months. Several options can be explored in this widget by doing the following:

1. Change the Sort By selection (defaults to Most Constrained) -- in addition to Most Constrained, we can also sort by CPU Demand, Memory Demand, and Disk Space Demand.
2. This widget shows the capacity data for each vSphere cluster in the datacenter. We can change our selection in this area by selecting another cluster. In the current lab, we have two clusters to choose from.
3. The vertical dotted lines represent today and the day resources will run out (based upon current consumption). In this example, the two lines overlap, as resources will run out today. Everything to the right of the dotted lines represent a trend based on the data Aria Operations has collected previously from the environment.
4. Change the resource selection across the top of the menu (change view between CPU, Memory, and Disk Space). In our screenshot, Memory is alerting as constrained as noted by the "red dot" next to the option while the CPU and Disk Space resources are showing a "green check" noting those resources are currently fine. Note: Depending upon the available resources of the lab, we may see different results than what is shown in this example.
5. Change the Show History For or Show Forecast For options. Available view options include: 1 week, 1 month, 3 months, 6 months, or 12 months. Feel free to choose any timeframe of interest.
6. Click on the CAPACITY CONFIGURATION DETAILS link to see what policy the object is using to determine criticality thresholds.
7. Recommendations (not shown in image) -- scroll further down to see any recommendations Aria Operations makes for the current cluster.

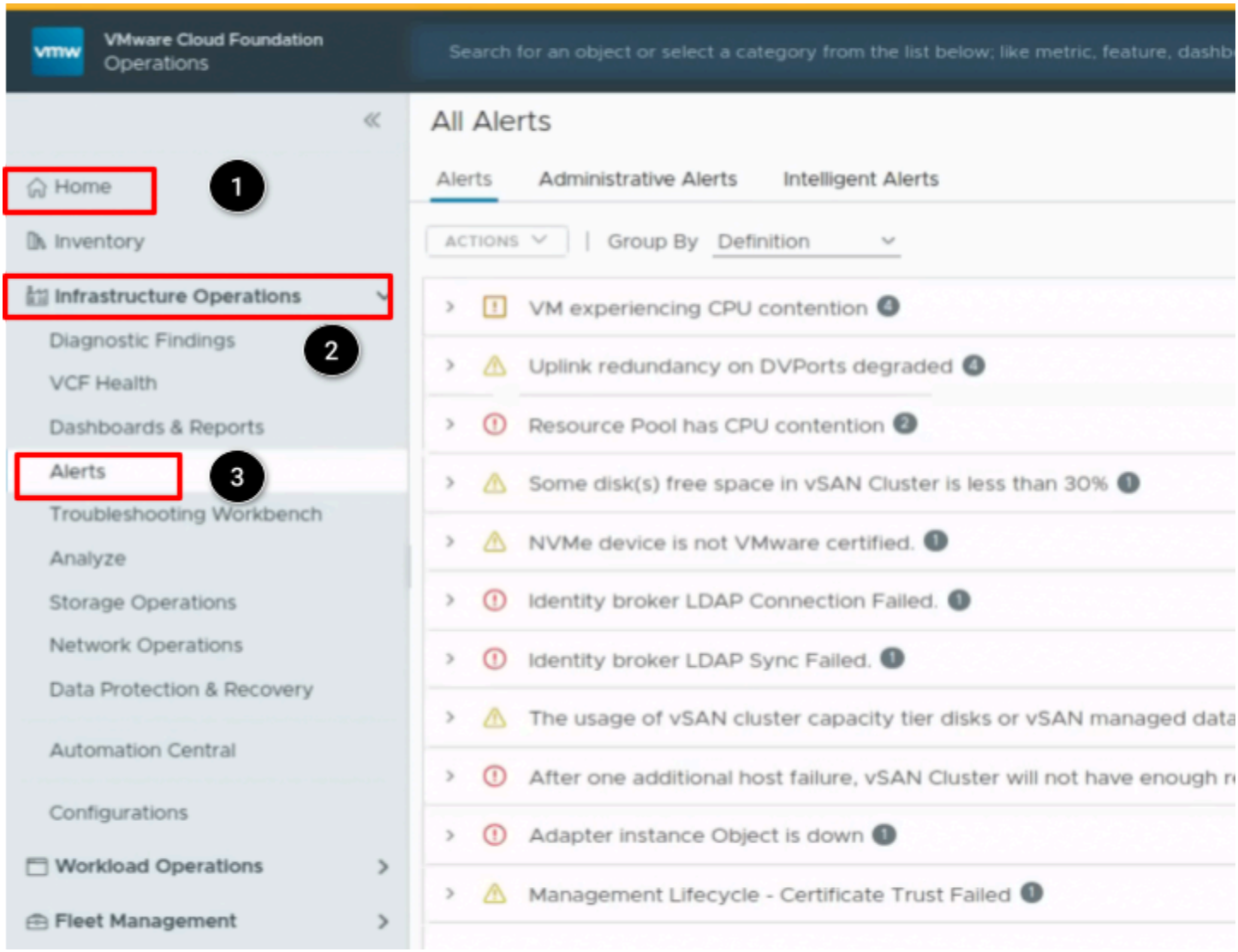
8. RUN SCENARIO (not shown in image) -- located at the bottom of this page. This feature is covered in detail in the "Getting More Out of Aria Operations" lab and is outside the scope of this lab's overview.

Monitoring and Troubleshooting Essentials

VCF Operations gives administrators in depth reporting and alerting capabilities. With the ability to create customized alerts designed for specific objects, applications or systems, administrators can eliminate the noise of an environment and instead focus on what's important. Let's take a look at the basic alerting capabilities.

Alerts

Alert overview

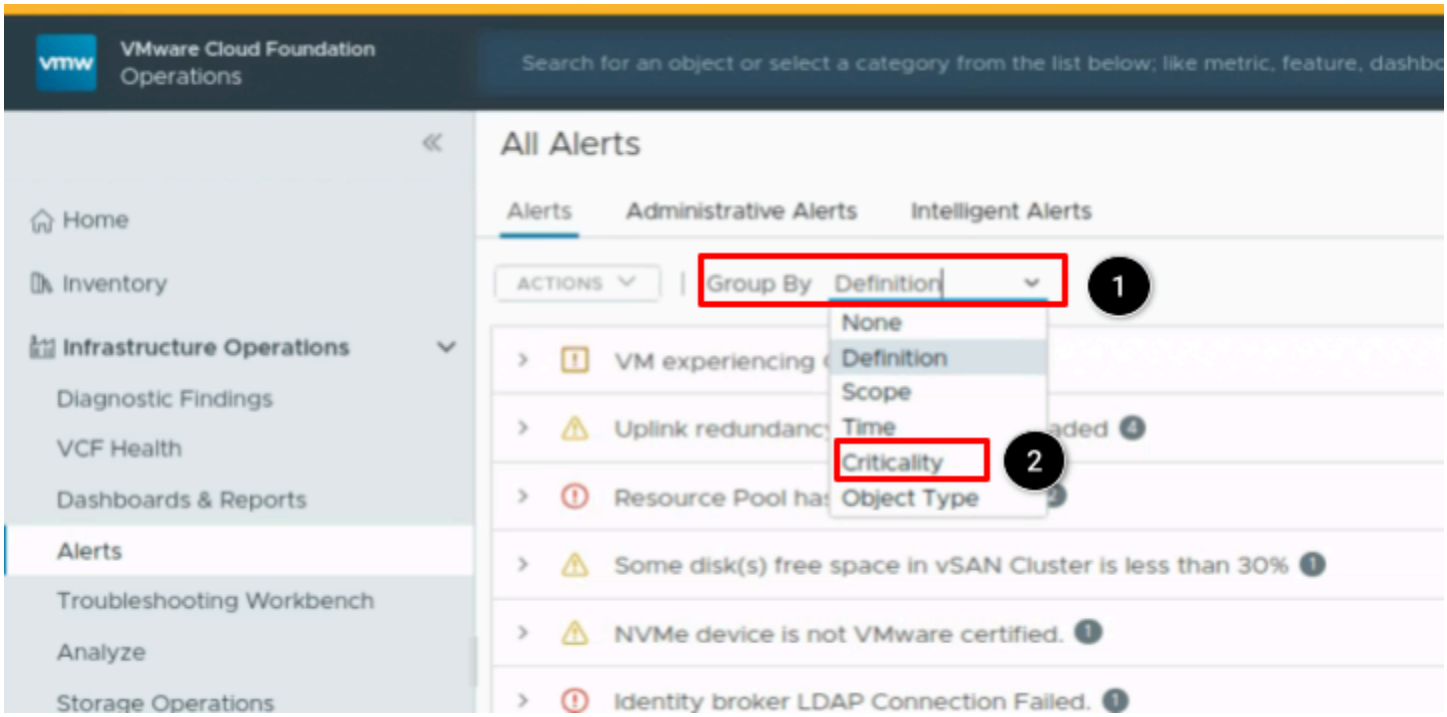


Now, let's locate the Alerts section of the VCF Operations User Interface.

1. Click on **Home**.

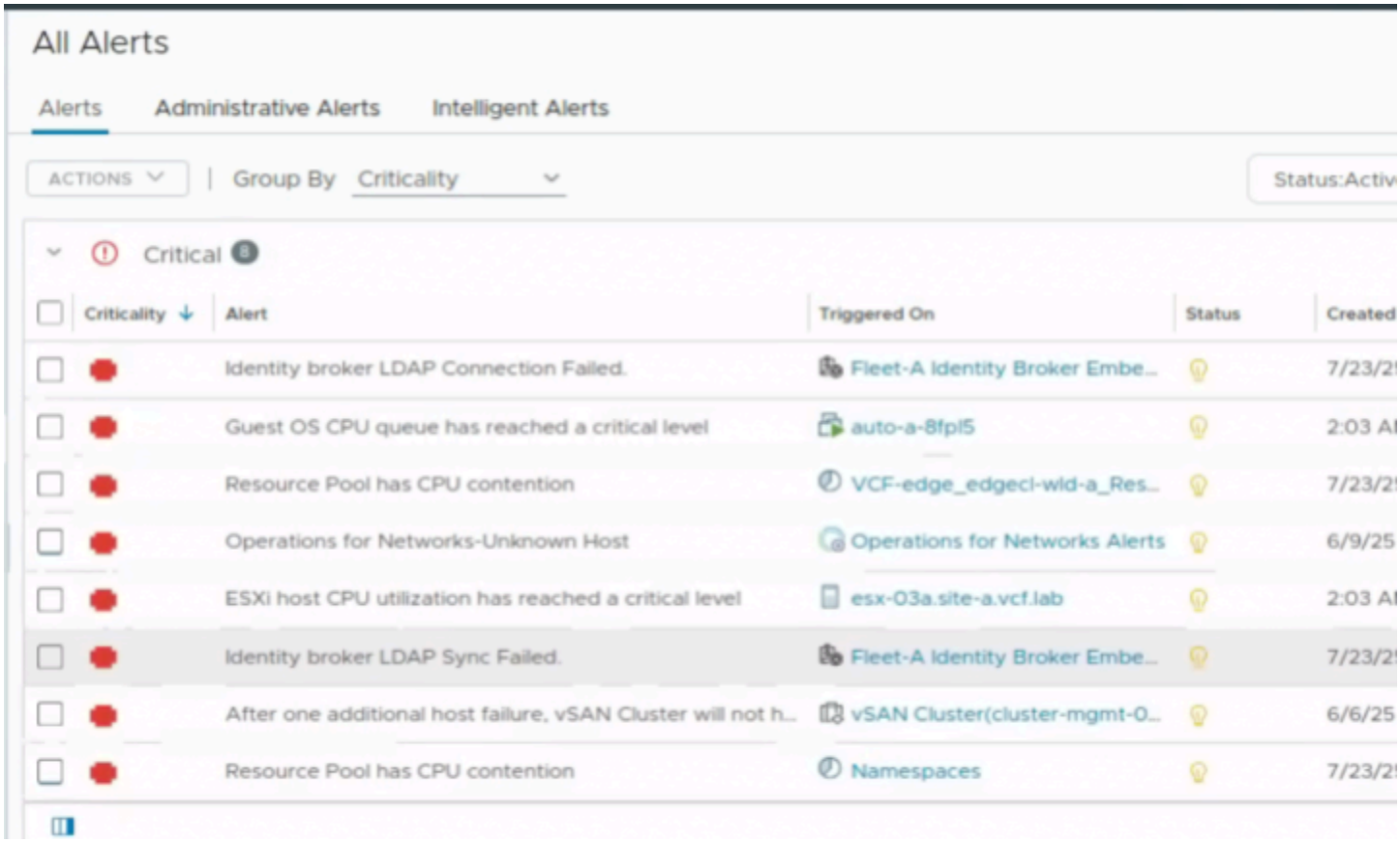
2. Click on the I**nfrastructure Operations** to expand the menu.
3. Click on **Alerts**.

Alert Grouping

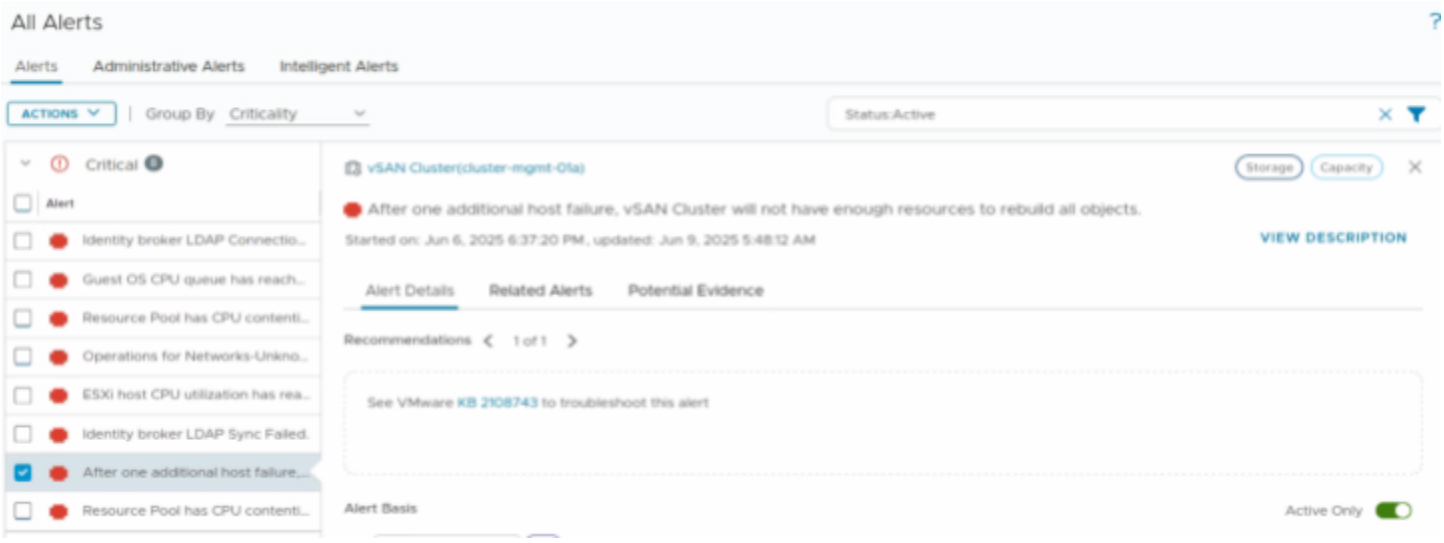


Alerts by default are grouped together by Time. There are additional options that can be used for grouping, including Criticality, Definition, Object Type and Scope.
Let's change the grouping and view our alerts based on Criticality.

1. Click the down carrot next to **Group By**.
2. Select **Criticality** .You will see all kind of critical alerts.



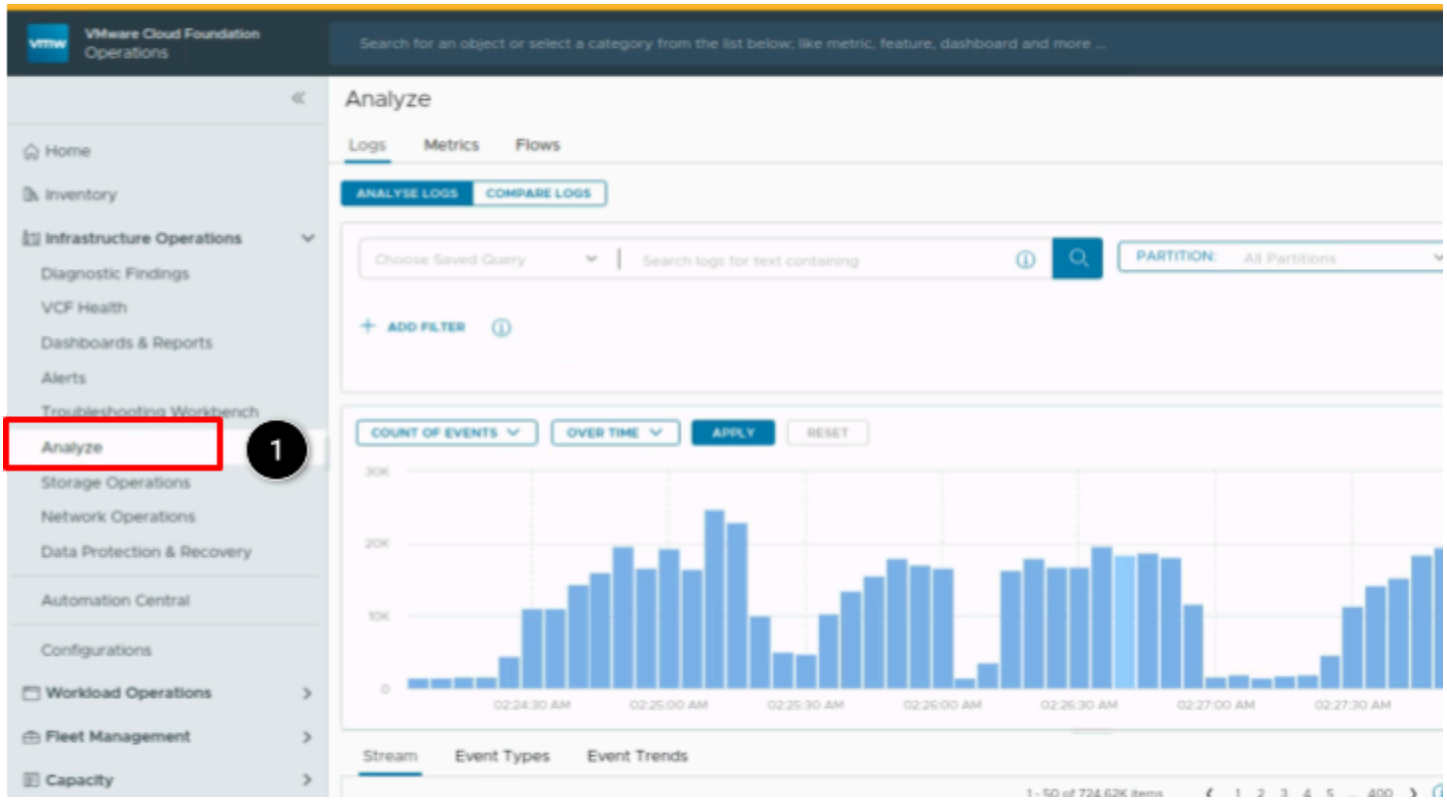
Alert Details



Each Alert provides in-depth information to assist in not just knowing an alert was triggered, but why it was triggered. Additionally, as we examine the symptoms that were triggered we also see the ability to troubleshoot with logs. This helps us correlate log events to the performance metrics and alarms we see in VCF Operations.

Analyze

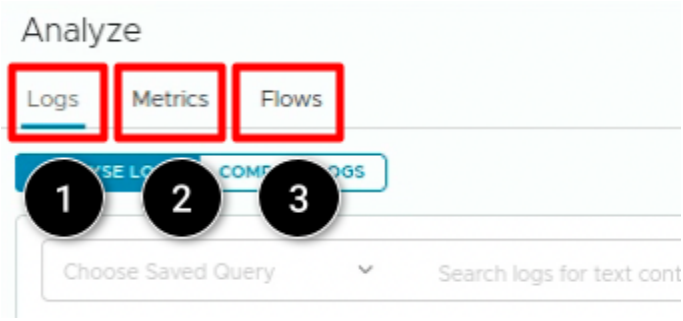
Many capabilities in **VCF Operations** become available only when **VCF Operations for logs** and **VCF Operations for networks** are deployed and properly configured. One of these capabilities is the new Analyze console.



To get there follow the following steps:

1. Click **Infrastructure Operations**
2. Click **Analyze**

Analyze Console



The **Analyze** console contains three distinct tabs designed to support troubleshooting across various scenarios. Each of these tabs will be explored in greater detail in the upcoming modules.

1. **Logs**: Provides an integrated user experience for log analysis. (**Module 2** - Explore and Analyze Logs and build Log Dashboards in VCF Operations
2. **Metrics**: Provides an interface to analyze metrics and objects by creating a query. (**Module 3** - Explore and Analyze Object Metrics in VCF Operations)
3. **Flows**: Provides comprehensive visibility into network traffic patterns, performing analysis based on the entities, flows and time range. (**Module 4** - Explore and Analyze specific Flows in VCF Operations)

Conclusion

In this module, we introduced capacity management and monitoring options available in Aria Operations.

From here you can:

- Take this quick survey to provide feedback about your experience with VCF 9.0
- Click [vlp:table-of-contents|Show Table of Contents] to jump to any module or lesson in this lab.
- End your lab and return in the future.

End of Lab Manual

Item No: 51227-vcf-wp-hands-on-labs-manual-2025, Jan-25

vmware® by Broadcom