

vCloud Suite Licensing

vCloud Suite 5.1

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vCloud Suite Licensing

vCloud Suite Licensing provides information about the licensing model of VMware vCloud[®] Suite 5.1 and how to activate the different vCloud Suite components.

Intended Audience

This information is intended for system administrators of cloud infrastructure environments that want to apply the vCloud Suite license and monitor the license usage for vCloud Suite regularly.

vCloud Suite 5.1 Components and Licensing Model

1

VMware vCloud[®] Suite 5.1 combines multiple components into a single product to cover the complete set of cloud infrastructure capabilities. When used together, the vCloud Suite components provide virtualization, software-defined datacenter services, policy-based provisioning, disaster recovery, application management, and operations management.

A vCloud Suite 5.1 edition combines components such as vSphere Enterprise Plus, vCloud Director, vCloud Networking and Security, and others, under a single license. vCloud Suite editions are licensed on a per-processor basis. Many of the vCloud Suite components are also available as standalone products licensed on a per-virtual machine basis. However, when these components are obtained through the vCloud Suite, they are licensed on a per-processor basis.

The components from a vCloud Suite edition are activated with a single license key. For example, if you have a license key for vCloud Suite 5.1 Standard, you can use the same key to activate vSphere Enterprise Plus, vCloud Director, vCloud Networking and Security, and so on.

NOTE The vCloud Suite 5.1 license is compatible with vCenter Server 5.1 only.

All virtual machines running on a processor licensed with a vCloud Suite edition can use all components included in that vCloud Suite edition. To run virtual machines on processors that are not licensed for vCloud Suite, you need individual licenses for the products that you want to use.

This chapter includes the following topics:

- [“vCloud Suite Components,”](#) on page 7
- [“Distributing the Processor Capacity of a vCloud Suite License,”](#) on page 8

vCloud Suite Components

The different vCloud Suite 5.1 editions include different sets of components. You must assign the vCloud Suite license to all components in your vCloud Suite edition.

The following vCloud Suite components correspond to vCloud Suite 5.1 Enterprise edition.

Table 1-1. vCloud Suite 5.1 Components

Components	Description
VMware vSphere	Provides virtualization technology to serve as the platform for cloud infrastructure.
VMware vCloud [®] Director	Provides the ability to build secure, multi-tenant clouds by pooling virtual infrastructure resources into virtual datacenters.

Table 1-1. vCloud Suite 5.1 Components (Continued)

Components	Description
VMware vCloud Connector	Provides a single user interface for overseeing multiple public and private clouds and for transferring cloud content from one cloud to another. By using vCloud Connector you can connect multiple clouds, both internal and external.
VMware vFabric Application Director	Automates application provisioning in the cloud including deploying and configuring the application's components and dependent middleware platform services on infrastructure clouds. vCloud Suite includes vFabric Application Director for Provisioning edition.
VMware vCloud Networking and Security	Provides a security suite for VMware vSphere. vCloud Networking and Security (formerly vShield) is a critical security component for protecting virtualized datacenters from attacks and misuse to help you achieve your compliance-mandated goals.
VMware vCenter Operations Management Suite	Automates operations management and provides integrated performance, capacity, and configuration management for virtualized and cloud infrastructure.
VMware vCenter Site Recovery Manager	Provides business continuity and disaster recovery capabilities that help you plan, test, and perform recovery of virtual machines between one site (the protected site) and another site (the recovery site).
VMware vCloud Automation Center	Provides a cross-cloud "storefront" for infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), and desktop-as-a-service (DaaS) deployments. By using vCloud Automation Center you can deploy and provision business-relevant cloud services across private and public clouds, physical infrastructure, hypervisors, and public cloud providers.

Distributing the Processor Capacity of a vCloud Suite License

Each vCloud Suite 5.1 license has a certain processor capacity that you can use to license multiple physical processors on ESXi hosts where you run the vCloud Suite components. When you assign a vCloud Suite license key to a host, the amount of processor capacity that is consumed is equal to the number of physical processors on the host.

To license physical processor that run vCloud Suite 5.1 components, you need to assign the ESXi hosts a vCloud Suite 5.1 license key with processor capacity that is sufficient to license all physical processors on the host.

For example, to run vCloud Suite 5.1 on two ESXi 5.x hosts that have four processors each, you need to assign the hosts a vCloud Suite 5.1 license key with a minimum capacity of eight processors.

You can assign and reassign the processor capacity of a vCloud Suite 5.1 license key to any combination of ESXi hosts. For example, suppose that you purchase a vCloud Suite 5.1 license key for 10 processors. You can assign the license key to any of the following combinations of hosts.

- Five 2-processor hosts.
- Three 2-processor hosts and one 4-processor host.
- Two 4-processor hosts and one 2-processor host.
- One 8-processor host and one 2-processor host.

Dual-core and quad-core processors, such as Intel processors that combine two or four independent processors on a single chip, count as one processor.

Activating vCloud Suite Components in the vSphere Web Client

2

You must assign the vCloud Suite license key to all suite components. For components that integrate with the vSphere Web Client client, you can use the license management option in the client.

NOTE The vCloud Suite 5.1 license is compatible with vCenter Server 5.1 only.

This chapter includes the following topics:

- [“Add the vCloud Suite License in the vSphere Web Client,”](#) on page 9
- [“Assign the vCloud Suite License to vSphere in the vSphere Web Client,”](#) on page 10

Add the vCloud Suite License in the vSphere Web Client

To assign the vCloud Suite license key to the suite components, you must add the key to the license inventory of vCenter Server.

Prerequisites

Required privilege: **Global.Licenses**

Procedure

- 1 From the vSphere Web Client navigator home, select **Administration**, and under **Licensing** select **Licenses**.
- 2 On the **License Keys** tab, click **Add License Keys**.
- 3 Type the vCloud Suite license key and click **Next**.
You can copy and paste the license key from My VMware.
- 4 Click **Finish**.

What to do next

Assign the vCloud Suite license key to the suite components that integrate with the vSphere Web Client.

Assign the vCloud Suite License to vSphere in the vSphere Web Client

You must assign the vCloud Suite license key to the ESXi hosts that run the vCloud Suite components. You can assign the license key by using the license management option in the vSphere Web Client.

Prerequisites

- Verify that the vCloud Suite license key is added in the inventory of vCenter Server. See [“Add the vCloud Suite License in the vSphere Web Client,”](#) on page 9
- Required privilege: **Global.Licenses**

Procedure

- 1 From the vSphere Web Client navigator home, select **Administration**, and under **Licensing** select **Licenses** .
- 2 On the **Hosts** tab, select the ESXi hosts that run the vCloud Suite components and click **Assign License Key**.
To select multiple hosts, use Shift+click.
- 3 Select the vCloud Suite license key and click **OK**.

The ESXi hosts are licensed for vCloud Suite.

Activating vCloud Suite Components in the vSphere Client

3

You must assign the vCloud Suite license to all suite components to unlock the vCloud Suite capabilities. For components that integrate with the vSphere Client, you can use the license management option in the client.

NOTE The vCloud Suite 5.1 license is compatible with vCenter Server 5.1 only.

This chapter includes the following topics:

- [“Add the vCloud Suite License by Using the vSphere Client,”](#) on page 11
- [“Assign the vCloud Suite License to vSphere in the vSphere Client,”](#) on page 12
- [“Assign the vCloud Suite License to vCenter Operations Management Suite in the vSphere Client,”](#) on page 12
- [“Assign the vCloud Suite License to vCloud Networking and Security in the vSphere Client,”](#) on page 13
- [“Assign the vCloud Suite License Key to vCenter Site Recovery Manager,”](#) on page 13

Add the vCloud Suite License by Using the vSphere Client

To assign the vCloud Suite license key to the suite components, you must add the key to the license inventory of vCenter Server.

Prerequisites

- Required privilege: **Global.Licenses**
- Verify that the vSphere Client is connected to the vCenter Server system.

Procedure

- 1 In the vSphere Client, select **Home > Administration > Licensing**.
- 2 Select **Manage vSphere Licenses**.
- 3 In the Add License Keys page, type or paste the vCloud Suite license key, and type an optional label for the key.
- 4 Click **Add License Keys**.
- 5 Review the details for the license key, click **Next** on the remaining pages of the wizard, and click **Finish**.

The vCloud Suite license key is added to the license inventory of vCenter Server.

What to do next

Assign the vCloud Suite license key to vSphere, vCenter Operations Management Suite, vCenter Site Recovery Manager, and vCloud Networking and Security.

Assign the vCloud Suite License to vSphere in the vSphere Client

You must assign the vCloud Suite license key to the ESXi hosts that run the components of vCloud Suite.

Prerequisites

- Required privilege: **Global.Licenses**
- Verify that the vSphere Client is connected to the vCenter Server system.
- Verify that the vCloud Suite license key is added in the repository of vCenter Server. See [“Add the vCloud Suite License by Using the vSphere Client,”](#) on page 11

Procedure

- 1 In the vSphere Client, select **Home > Administration > Licensing**.
- 2 Select **Manage vSphere Licenses**.
- 3 Click **Next**.
- 4 On the Assign Licenses page, select **ESX**.
- 5 Select the ESXi hosts that run the vCloud Suite components.
- 6 From the Product pane, select the vCloud Suite license key.
- 7 On the Remove License Keys page, click **Next**.
- 8 Click **Finish** to save your changes.

Assign the vCloud Suite License to vCenter Operations Management Suite in the vSphere Client

Assign the vCloud Suite license key to the components of vCenter Operations Management Suite to use them as part of vCloud Suite.

Prerequisites

- Required privilege: **Global.Licenses**
- Verify that the vSphere Client is connected to the vCenter Server system.
- Verify that the vCloud Suite license key is added in the repository of vCenter Server. See [“Add the vCloud Suite License by Using the vSphere Client,”](#) on page 11

Procedure

- 1 In the vSphere Client, select **Home > Administration > Licensing**.
- 2 Select **Manage vSphere Licenses**.
- 3 Click **Next**.
- 4 On the Assign Licenses page, select **Solutions**.
- 5 Select the components of vCenter Operations Management Suite that you want to run as part of vCloud Suite.
- 6 From the Product pane, select the vCloud Suite license key.
- 7 On the Remove License Keys page, click **Next**.

- 8 Click **Finish** to save your changes.

Assign the vCloud Suite License to vCloud Networking and Security in the vSphere Client

Assign the vCloud Suite license key to vCloud Networking and Security to use it as part of the suite.

NOTE vCloud Networking and Security components appear under vShield in the vSphere Client.

Prerequisites

- Required privilege: **Global.Licenses**
- Verify that the vSphere Client is connected to the vCenter Server system.
- Verify that the vCloud Suite license key is added in the repository of vCenter Server. See [“Add the vCloud Suite License by Using the vSphere Client,”](#) on page 11

Procedure

- 1 In the vSphere Client, select **Home > Administration > Licensing**.
- 2 Select **Manage vSphere Licenses**.
- 3 Click **Next**.
- 4 On the Assign Licenses page, select **Solutions**.
- 5 Select vCloud Networking and Security (vShield) .
- 6 From the Product pane, select the vCloud Suite license key.
- 7 On the Remove License Keys page, click **Next**.
- 8 Click **Finish** to save your changes.

Assign the vCloud Suite License Key to vCenter Site Recovery Manager

Assign the vCloud Suite license key to vCenter Site Recovery Manager to use it as part of the suite.

Prerequisites

- Required privilege: **Global.Licenses**
- Verify that the vSphere Client is connected to the vCenter Server system.
- Verify that the vCloud Suite license key is added in the repository of vCenter Server. See [“Add the vCloud Suite License by Using the vSphere Client,”](#) on page 11

Procedure

- 1 In the vSphere Client, select **Home > Administration > Licensing**.
- 2 Select **Manage vSphere Licenses**.
- 3 Click **Next**.
- 4 On the Assign Licenses page, select **Solutions**.
- 5 Select vCenter Site Recovery Manager.
- 6 From the Product pane, select the vCloud Suite license key.
- 7 On the Remove License Keys page, click **Next**.

- 8 Click **Finish** to save your changes.

Activating vCloud Suite Components by Using Their Own Licensing Interfaces

4

You must assign the vCloud Suite license to all suite components. vCloud Director, vCloud Connector, vCloud Automation Center, and vFabric Application Director provide their own licensing interfaces for license assignments.

NOTE The vCloud Suite 5.1 license is compatible with vCenter Server 5.1 only.

This chapter includes the following topics:

- [“Assigning the vCloud Suite License to vFabric Application Director,”](#) on page 15
- [“Assign the vCloud Suite License to vCloud Director,”](#) on page 15
- [“Assign the vCloud Suite License Key to vCloud Connector,”](#) on page 16
- [“Assign the vCloud Suite License to vCloud Automation Center 5.1,”](#) on page 16
- [“Assign the vCloud Suite License to vCloud Automation Center 5.2,”](#) on page 17

Assigning the vCloud Suite License to vFabric Application Director

To use vFabric Application Director as part of the vCloud Suite, you must assign it the vCloud Suite license key.

You can assign the vCloud Suite license key to vFabric Application Director while installing the component. If vFabric Application Director is already installed and running and has another license key assigned, you need to install vFabric Application Director again and assign it the vCloud Suite license key.

The vCloud Suite license key unlocks the features for vFabric Application Director for Provisioning edition.

Assign the vCloud Suite License to vCloud Director

To use vCloud Director as part of the vCloud Suite, you must assign vCloud Director the vCloud Suite license key.

You can assign the vCloud Suite license key to vCloud Director while installing the component, or you can assign the license key to an already running instance of vCloud Director.

Prerequisites

You must be logged in to vCloud Director as an administrator.

Procedure

- 1 On the home page of the vCloud Director Web console, select **Administration**.
- 2 Under System Settings, select **License**.

- 3 In the **Serial number** text box, type or copy and paste the vCloud Suite license key.
- 4 Click **Apply**.

vCloud Director is licensed for vCloud Suite. The Licensed VM count field does not display any number of virtual machines, as vCloud Suite license is per-processor.

Assign the vCloud Suite License Key to vCloud Connector

To use vCloud Connector 2.0 Advanced features as part of vCloud Suite 5.1, you must assign vCloud Connector the vCloud Suite 5.1 license key.

Procedure

- 1 In a Web browser, go to `https://vCloudConnectorServerIPAddress:5480`.
This is the IP address of the vCloud Connector Server that you installed in vSphere or vCloud Director. You can get the IP address of the server from its console.
- 2 Log in as **admin**.
If you have not yet changed the password, use the default password **vmware**.
- 3 On the **Server** tab, select the **General** tab.
- 4 In the **vCC License** section, copy and paste or type the vCloud Suite license key in the **License Key** text box.
- 5 Click **Update Key**.

The features for vCloud Connector Advanced are enabled.

Assign the vCloud Suite License to vCloud Automation Center 5.1

To use vCloud Automation Center 5.1 as part of vCloud Suite, you must assign it the vCloud Suite license. The vCloud Suite license for vCloud Automation Center is an XML file that you can assign to vCloud Automation Center while installing or to an already running instance of vCloud Automation Center.

To assign the vCloud Suite license to an already running instance of vCloud Automation Center, you must overwrite the current vCloud Automation Center license with the vCloud Suite license. The vCloud Automation Center license is named `lic.xml` and resides in the root installation directory of vCloud Automation Center.



CAUTION Do not delete the current vCloud Automation Center license before you replace it with the vCloud Suite license.

Procedure

- 1 Rename the vCloud Suite license file to `lic.xml`.
- 2 Copy the vCloud Suite license file to the root installation directory of vCloud Automation Center.
The vCloud Suite license overwrites the vCloud Automation Center license. vCloud Automation Center automatically detects the vCloud Suite license and updates its licensing information.
- 3 If the previous vCloud Automation Center license is invalid or expired, reload the vCloud Suite license.
 - a Start the vCloud Automation Center console as a vCAC administrator.
 - b Select **vCAC Administrator > License Info**.
 - c Click **Reload License**.

You licensed vCloud Automation Center for vCloud Suite.

Assign the vCloud Suite License to vCloud Automation Center 5.2

Assign the vCloud Suite license key to vCloud Automation Center 5.2 to use it as part of the suite.

Procedure

- 1 Start vCloud Automation Center as a vCAC administrator.
- 2 Select **vCAC Administrator > License Info**.
The Add License dialog box appears.
- 3 In **License key**, type the vCloud Suite license key.
You can also copy and paste the key from My VMware.
- 4 Click **OK**.

Monitoring License Usage for vCloud Suite

5

You can monitor the license usage and the available license capacity for all assigned vCloud Suite licenses by using the license reporting function in vCenter Server.

You can use the license reporting function in vCenter Server to perform the following tasks:

- View statistics for the license usage and capacity of vCloud Suite filtered by a vCenter Server system and time period.
- Export license usage reports in CSV files for further analysis and processing.

This chapter includes the following topics:

- [“View the License Usage for vCloud Suite in the vSphere Client,”](#) on page 19
- [“View the License Usage for vCloud Suite in the vSphere Web Client,”](#) on page 20
- [“Export a License Usage Report for vCloud Suite,”](#) on page 20
- [“Export a License Usage Report for vCloud Suite in the vSphere Web Client,”](#) on page 21

View the License Usage for vCloud Suite in the vSphere Client

To make sure that the license usage for vCloud Suite meets the compliance criteria for the product, you can regularly track the CPU usage for the assigned vCloud Suite licenses.

vCenter Server takes snapshots of the license usage every hour. A license usage snapshot contains data about the current license assignments and usage. The usage information in the license reporting interface contains aggregated statistics from snapshots that are taken in the period that you select.

Prerequisites

- Required privilege: **Global.Licenses**
- Verify that the vSphere Client is connected to the vCenter Server system.
- Verify that the vCloud Suite license key is added in the repository of vCenter Server. See [“Add the vCloud Suite License by Using the vSphere Client,”](#) on page 11

Procedure

- 1 In the vSphere Client, navigate to **Home > Administration > Licensing** and select the **Reporting** tab.
- 2 From the **vCenter Server** drop-down list, select a vCenter Server system.
Leave the default **All vCenter Server instances** selection.

- 3 From the **Time period** drop-down menu, select a preconfigured or a custom time period for which you want to aggregate license usage data.

For a custom time period, you must specify the start and end dates, and click **Recalculate** .

- 4 From the Products Chart pane, select a vCloud Suite product.

Details about the license usage for vCloud Suite for the selected time period appear in the Product Details pane. The license usage is calculated as the average daily high water mark for the selected period.

View the License Usage for vCloud Suite in the vSphere Web Client

You can use the license reporting function in the vSphere Web Client to track the license usage for vCloud Suite.

vCenter Server takes snapshots of the license usage every hour. A license usage snapshot contains data about the current license assignments and usage. The usage information in the license reporting interface contains aggregated statistics from snapshots that are taken in the period that you select.

Prerequisites

Required privilege: **Global.Licenses**

Procedure

- 1 From the vSphere Web Client navigator home, select **Administration**, and under **Licensing** select **License Reports**.
- 2 From the **vCenter Server** drop-down list, select a vCenter Server system.
- 3 (Optional) To aggregate license usage data for a vCenter Server system that is part of a Linked Mode group, select **Show data only for the selected vCenter Server**.
- 4 From the **Time period** drop-down menu, select a preconfigured or a custom time period for which you want to aggregate license usage data.
For a custom time period, you must specify the start and end dates, and click **Recalculate** .
- 5 From the Products Chart pane, select a vCloud Suite product.

Details about the license usage for vCloud Suite for the selected time period appear in the Product Details pane. The license usage is calculated as the average daily high water mark for the selected period.

Export a License Usage Report for vCloud Suite

You can export a report of the license usage for vCloud Suite for a time period and vCenter Server system. The report is exported in a CSV file that you can later open with third-party applications.

The license usage data in an exported report contains the license usage snapshots that vCenter Server collects every hour.

NOTE A tamper-detection feature in vCenter Server protects the license usage information. If the licensing data in the vCenter Server database has been edited, you cannot export a license usage report.

Prerequisites

- Required privilege: **Global.Licenses**
- Verify that the vSphere Client is connected to the vCenter Server system.
- Verify that the vCloud Suite license key is added in the repository of vCenter Server. See [“Add the vCloud Suite License by Using the vSphere Client,”](#) on page 11

Procedure

- 1 In the vSphere Client, navigate to **Home > Administration > Licensing** and select the **Reporting** tab.
- 2 Click **Export**.
- 3 From the **vCenter Server** drop-down list, select the vCenter Server system for which you want to export a license usage report.
Leave the default **All vCenter Server instances** selection.
- 4 From the **Time period** drop-down menu, select a preconfigured or a custom time period.
- 5 Click **Export**.
- 6 Save the report on your local system.

Export a License Usage Report for vCloud Suite in the vSphere Web Client

In the vSphere Web Client, you can export a report of the license usage for vCloud Suite for a time period and vCenter Server system. The report is exported in a CSV file that you can later open with third-party applications.

The license usage data in an exported report contains the license usage snapshots that vCenter Server collects every hour.

NOTE A tamper-detection feature in vCenter Server protects the license usage information. If the licensing data in the vCenter Server database has been edited, you cannot export a license usage report.

Prerequisites

Required privilege: **Global.Licenses**

Procedure

- 1 From the vSphere Web Client navigator home, select **Administration**, and under **Licensing** select **License Reports**.
- 2 Click **Export**.
- 3 From the **vCenter Server** drop-down list, select the vCenter Server system for which you want to export a license usage report.
If you select a vCenter Server system that is part of a Linked Mode group, the report contains license use data for the entire group.
- 4 (Optional) To export data for a vCenter Server system that is part of a Linked Mode group, select **Export license data only for the selected vCenter Server instance**.
- 5 From the **Time period** drop-down menu, select a preconfigured or a custom time period.
- 6 Click **Export**.
- 7 Save the report on your local system.

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