

Getting Started with vSphere+

November 2023
VMware vSphere+

You can find the most up-to-date technical documentation on the VMware website at:

<https://docs.vmware.com/>

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What is vSphere+

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VMware® vSphere+™ is a multi-cloud workload platform that brings the benefits of VMware Cloud Services to your on-premises workloads. vSphere+ combines the industry-leading virtualization technology, an enterprise-ready Kubernetes environment, and high-value cloud services to transform your existing on-premises deployments into a SaaS-enabled infrastructure.

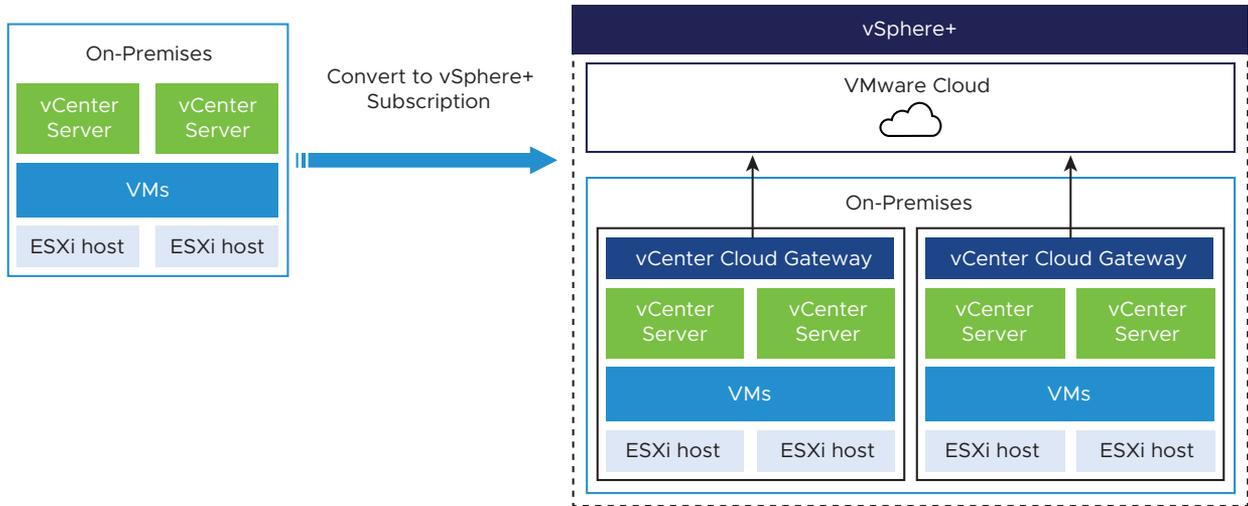
VMware offers a simple and flexible subscription model for vSphere+. You can leverage your existing capital expense (CapEx) investments and easily shift to an operational expense (OpEx) model with a pay-as-you-grow subscription without needing to refactor workloads.

vSphere+ provides you the flexibility to manage and operate your vSphere infrastructure on-premises while leveraging several cloud capabilities. With vSphere+, you can:

- Visualize your entire vSphere inventory distributed across different geographies from a centralized VMware Cloud (VMC) console.
- Easily monitor global events, alerts, and security posture of your vSphere infrastructure. Quickly triage areas that need your immediate attention.
- View all the VMs in your vSphere environment, identify clusters that have the required capacity, and create VMs as necessary.
- Update your vCenter instances in a single click. With the reduced operational effort and maintenance window, you can plan for updates more frequently and keep your vCenter up-to-date with all new features.
- Standardize and easily cascade desired state vCenter configurations across your vSphere environment. Easily detect and remediate any configuration drifts.
- Transform your existing virtual infrastructure into an enterprise-ready, self-service Kubernetes platform by using VMware Tanzu® Standard Runtime™ Edition and VMware Tanzu® Mission Control™ Essentials included in the vSphere+ subscription.
- Protect VMs and manage the protection status directly from the VMware Cloud Console, if you have the VMware Cloud Disaster Recovery™ subscription.

For vSphere+, the only installation required in your on-premises environment is a VMware Cloud Gateway VM. VMware Cloud Gateway establishes the communication between your on-premises vCenter instances and VMware Cloud, thereby, facilitates monitoring and managing your vSphere infrastructure from the VMware Cloud console.

Figure 1-1. vSphere+ Architecture



System Requirements for vSphere+

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vSphere+ supports all existing vSphere capabilities including Enhanced Linked Mode and vSphere High Availability (HA). The ESXi host and vCenter must meet certain software and hardware requirements.

ESXi Host and vCenter Requirements

- vCenter:
 - 7.0 Update 3g and later
 - 8.0.x and later
- ESXi hosts: All versions of 6.7, 7.0, and 8.0.

Hardware Requirements

The cluster where the vCenter and VMware Cloud Gateway are deployed must meet certain hardware requirements.

Hardware Requirements for VMware Cloud Gateway

You can connect up to 8 vCenter instances on each VMware Cloud Gateway instance. The number of instances you must install depends on the number of vCenter instances you want to subscribe to vSphere+. See [VMware Cloud Gateway Requirements](#).

Hardware Requirements for vCenter Updates

The CPU, memory, and storage on the cluster must be at least twice the size of the deployed vCenter so that the hardware is sufficient for the vCenter updates. See [System Requirements for the vCenter Server](#).

Understand Subscription Editions

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vSphere+ and vSAN+ subscriptions are available in different editions that offer different features. Higher editions offer more features compared to lower editions. For example, vSphere+ offers more features than vSphere+ Standard. Similarly, vSAN+ Enterprise offers more features than vSAN+ Advanced.

For detailed information about the various editions and the features available in each vSphere+ edition, see the [vSphere Product Line Comparison](#) guide. For vSAN+, see the [vSAN Licensing Guide](#).

Start vSphere+ Free Trial

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VMware offers vSphere+ free trial where you can explore all the vSphere+ capabilities.

To explore free trial capabilities, you must install VMware Cloud Gateway and connect your vCenter instances to VMware Cloud. You do not need to purchase a subscription or subscribe your vCenter to vSphere+.

If you have vSAN clusters in your environment, you can also explore vSAN+ free trial capabilities. If you already completed the vSphere+ free trial, you cannot start vSAN+ free trial.

When the free trial expires, you can no longer access vSphere+. If you do not plan to purchase a subscription, you can uninstall VMware Cloud Gateway.

Prerequisites

- Ensure that your vSphere environment meets all the requirements. See [Chapter 2 System Requirements for vSphere+](#).
- Log out from the VMware Cloud Console.

Procedure

1 Go to the VMware Cloud Console at <https://vmc.vmware.com>.

2 Under **Infrastructure**, select **vSphere+ > Learn More**.

3 Click **Start Trial**.

The VMware Cloud Services login page opens.

4 Follow the on-screen prompts to create your VMware Cloud account by using your existing VMware account credentials. If you do not have a VMware account, create an account now.

5 On the **Organization** page, enter the required details to create an Organization or select an existing one, and click **Complete**.

The vSphere+ launchpad opens.

6 Under **Infrastructure**, select **vSphere+ > Learn More > Get Started**.

The **Journey** page opens.

What to do next

- Review the instructions on the **Journey** page, and click **Get Started** to install VMware Cloud Gateway and connect your vCenter instances to VMware Cloud. See [Chapter 7 Connect Your vCenter](#).
- When you are ready to purchase a subscription, contact a VMware sales representative or a VMware partner. See [Chapter 5 Purchase Subscriptions](#).

Purchase Subscriptions

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VMware offers a simple and flexible subscription model for vSphere+. You can either purchase a new subscription or upgrade your existing licenses to subscription. Subscriptions are for a predefined period of one or three years.

vSphere+ is available in different editions that provide different capabilities. See [Chapter 3 Understand Subscription Editions](#). When you are ready to purchase a subscription, contact a VMware sales representative or a VMware partner who will help you with the subscription that suits your vSphere environment.

In addition to vSphere+, you can also purchase the following subscriptions:

vSAN+ subscription

If the vCenter instances that you plan to subscribe to vSphere+ manage vSAN clusters, you can either continue to use vSAN license keys or purchase a vSAN+ subscription. Do not use a combination of vSAN+ subscriptions and vSAN license keys within the same VMware Cloud account Organization. Combining vSAN+ subscriptions and vSAN license keys results in the entire vSAN deployment being converted to vSAN+ subscription metering and billing, where the license keys would be ignored. This could result in unexpected subscription usage.

VMware Cloud Disaster Recovery (DR) subscription

To protect VMs using VMware Cloud DR from the VMware Cloud Console, you can purchase a VMware Cloud DR subscription. For more information, see the [VMware Cloud Disaster Recovery](#) product page.

Determine the Required Subscription Capacity

vSphere+ subscription capacity is based on the total number of physical CPU cores of each CPU on all the ESXi hosts associated with the vCenter instances that you plan to subscribe to vSphere+. Similarly, vSAN+ subscription capacity is based on the total number of physical CPU cores for each CPU on all the ESXi hosts associated with the vSAN clusters managed by the vCenter.

You must purchase a minimum capacity of 16 cores per CPU.

Subscription capacity = number of cores required per CPU × number of CPUs per ESXi host × number of ESXi hosts

The following table describes how to determine the required subscription capacity.

Table 5-1. Subscription Capacity

ESXi Hosts	CPUs per ESXi Host	Cores per CPU	Subscription Capacity Required	Calculation
2	2	8	64	Though the number of cores is 8 on each CPU, you must purchase 64 cores because the minimum subscription capacity is 16 cores per CPU and there are 2 CPUs on each of the 2 ESXi hosts.
1	4	16	64	Subscription capacity is the total number of cores × number of CPUs × number of ESXi hosts.

Any additional usage beyond the number of cores you purchase is charged based on the overage pricing for which you sign up at the time of purchase.

To identify the number of core licenses required to subscribe your existing deployments to vSphere+ and vSAN+, VMware provides a script. For more information about using the script, see <https://kb.vmware.com/s/article/89116>.

Purchase Options

You can purchase subscriptions from multiple sources. Purchasing from different sources results in a different seller of record being associated with the purchased resources. The seller of record is responsible for billing the resources purchased from them. The seller of record also determines attributes such as payment types, terms of service, catalog, region, and currency. Multiple options help you to select the best seller attributes for your organization.

Purchase Through VMware

When you purchase through VMware:

- VMware is the seller of record.
- Billing is done by VMware.

VMware terms of service, payment methods, currencies, regions, discounts, and pricing apply.

- You deploy and manage your vSphere+ infrastructure through the VMware Cloud Console.

Purchase Through a Partner

When you purchase through a partner:

- The partner is the seller of record.
- Billing is done by the partner.

Through this purchase model, the payment instruments, terms of service, region, currency, and so on, are determined by your relationship with the partner. Contact your partner's sales team for all questions related to pricing and billing.

- You deploy and manage your vSphere+ infrastructure through the VMware Cloud Console.

Apply Subscriptions

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When you purchase a vSphere+ subscription, you receive an email in 24 hours that contains a unique link to apply the subscription. Use this link and follow the on-screen prompts to apply a vSphere+ subscription.

When you purchase a vSAN+ subscription, it is applied to your Organization automatically after you apply the vSphere+ subscription.

If you are logging in to the VMware Cloud Console for the first time, you create your VMware Cloud account and an Organization, and then apply the subscription to the Organization.

VMware Cloud accounts are based on an Organization, which corresponds to a group or line of business subscribed to VMware Cloud Services. VMware Cloud Services use Organizations to provide controlled access to one or more services. Your VMware Cloud account is contained within an Organization.

Procedure

- 1 In the email that you received after purchasing the vSphere+ subscription, click **Apply Subscription**.

The VMware Cloud Services sign in page opens.

- 2 Follow the on-screen prompts to create your VMware Cloud account by using your existing VMware account credentials. If you do not have a VMware account, create an account as you sign up.
- 3 On the **Subscriptions** page, select the subscriptions and commitments that apply to your Organization.
- 4 On the **Organization and Payment** page, enter your Organization details and payment method. You can select an existing Organization or create one for vSphere+.
- 5 Click **Complete > Apply Subscriptions**.
The vSphere+ **Launchpad** page opens.
- 6 Under **Infrastructure**, select **vSphere+ > Learn More > Get Started**.
You are directed to **Journey** page.

What to do next

Review the instructions on the **Journey** page, and click **Get Started** to install VMware Cloud Gateway and connect your vCenter instances to VMware Cloud. See [Chapter 7 Connect Your vCenter](#).

Connect Your vCenter

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VMware Cloud Gateway serves as a gateway and establishes the communication between your vCenter and VMware Cloud. After you install VMware Cloud Gateway, connect VMware Cloud Gateway to VMware Cloud and then connect your vCenter to VMware Cloud Gateway.

Read the following topics next:

- [VMware Cloud Gateway Requirements](#)
- [Install VMware Cloud Gateway Using the GUI](#)
- [Install VMware Cloud Gateway Using the CLI](#)
- [Connect VMware Cloud Gateway to VMware Cloud](#)
- [Connect Your vCenter to VMware Cloud Gateway](#)

VMware Cloud Gateway Requirements

Before you install VMware Cloud Gateway, understand the network communication between VMware Cloud Gateway and VMware Cloud and ensure that your vSphere environment meets all the VMware Cloud Gateway requirements.

Understand the Network Communication Between VMware Cloud Gateway and VMware Cloud

VMware Cloud Gateway and VMware Cloud communicate as follows:

- VMware Cloud Gateway requires outbound internet connectivity to communicate with VMware Cloud. The communication is secured using transport-level security (TLS1.2 and above) and application-level security (using secure tokens).
- The reverse communication from VMware Cloud to VMware Cloud Gateway is achieved through the messaging channel. VMware Cloud would not have a direct line of sight to VMware Cloud Gateway instances that are deployed in your on-prem environment. Whenever a VMware Cloud service communicates with VMware Cloud Gateway to perform any action, it publishes the message to the message broker channel in the cloud.

- VMware Cloud Gateway contains a message broker agent that periodically pulls the messages from the cloud that are intended for itself from the message broker channel over an HTTPS communication. When VMware Cloud Gateway receives the message, the gateway services process the message and update the status to the cloud services.

Therefore, the communication from VMware Cloud Gateway to VMware Cloud is always northbound. The reverse communication is achieved by VMware Cloud Gateway periodically polling for messages.

This communication pattern makes the VMware Cloud Gateway deployment easier because you do not have to install it in a DMZ network or make it available over the internet. VMware Cloud Gateway can run behind firewalls, and be allowed to establish outbound internet connections to endpoints and ports that are required for vSphere+.

vSphere Requirements

Ensure that your vSphere environment meets the version requirements for vSphere+, see [Chapter 2 System Requirements for vSphere+](#).

Minimum Hardware Requirements

The following hardware requirements are for a single instance of VMware Cloud Gateway. The number of instances you must install depends on the number of vCenter instances you want to subscribe to vSphere+. You can connect up to 8 vCenter instances on each VMware Cloud Gateway instance.

Table 7-1. Virtual Hardware Requirements

Virtual Hardware	Minimum Requirement
vCPUs	8
Memory	28 GB
Storage	224 GB

Supported Guest Operating Systems

You can use any of the following guest operating systems to run the VMware Cloud Gateway ISO installer:

- Windows 10 or later (32-bit and 64-bit)
- Linux
- MacOS

Browser Requirements

- Google Chrome 89 or later
- Mozilla Firefox 80 or later

- Microsoft Edge 90 or later

Note Later versions of these browsers are likely to work, but have not been tested.

Network Requirements

- Ensure that the time is in sync between the vCenter and VMware Cloud Gateway, and also between VMware Cloud Gateway and VMware Cloud (<https://time.vmware.com>).
- Verify that the network latency from VMware Cloud Gateway to VMware Cloud and from VMware Cloud Gateway to vCenter is not more than 300 ms.
- Add the VMware Cloud Gateway FQDN in your DNS server, and configure forward and reverse DNS lookups.
- If you use a proxy server to connect to the Internet, keep the following proxy details handy:
 - Proxy server IP address or hostname
 - Port number
 - User name and password to authenticate to the proxy server
- VMware Cloud Gateway does not support IPv6. Ensure that the vCenter is not configured with an IPv6 address.

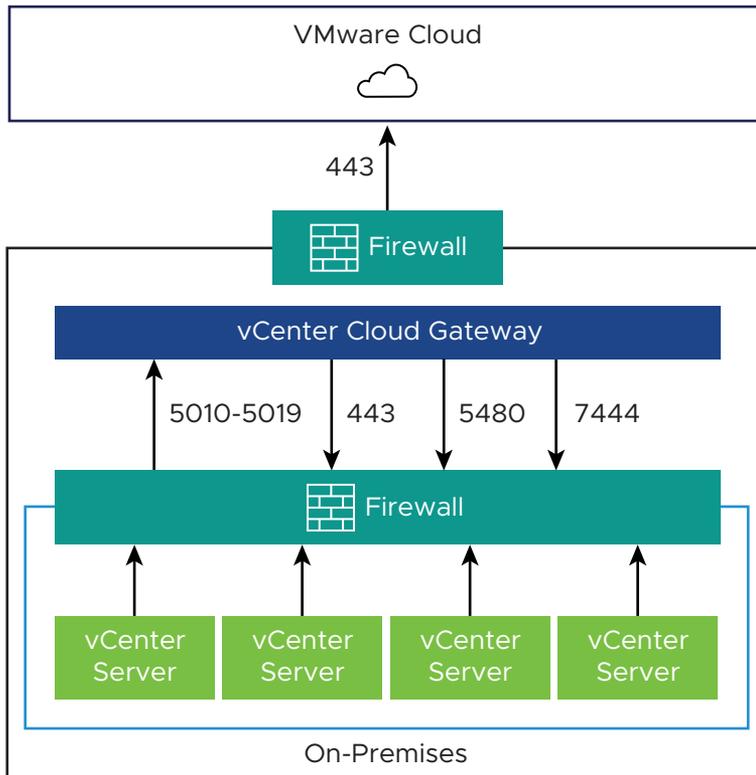
Port Requirements

For VMware Cloud Gateway to communicate with VMware Cloud and the vCenter, ensure that the following firewall ports are open.

Source	Destination	Port	Purpose
User's Web browser	VMware Cloud Gateway	5480 and 5484	Gathering support bundle
User's Web browser	<ul style="list-style-type: none"> ■ https://vmc.vmware.com/ ■ https://console.cloud.vmware.com/ ■ *vmwareidentity.com ■ gaz.csp-vidm-prod.com 	443	Access to VMware Cloud
VMware Cloud Gateway	vCenter	5480	Access to vCenter appliance management system
VMware Cloud Gateway	vCenter	7444	Access to VMware Single Sign-On
VMware Cloud Gateway	vCenter	443	Access to vCenter
VMware Cloud Gateway	vCenter	2020	Access to the vCenter Authentication Framework RPC port to fetch trusted root certificates.

Source	Destination	Port	Purpose
VMware Cloud Gateway	VMware Cloud Allow the following domains: <ul style="list-style-type: none"> ■ https://vmc.vmware.com/ ■ https://console.cloud.vmware.com/ ■ https://th.vmwarevmc.com/ ■ sre.vmc.vmware.com ■ https://data.mgmt.cloud.vmware.com/ ■ https://docker.vmc.vmware.com/ ■ https://vcgw-updates.vmware.com/ ■ https://scapi.vmware.com/ ■ *.gw.us.vmc.vrops-cloud.com ■ gw.us.vmc.vrops-cloud.com 	443	Access to VMware Cloud
VMware Cloud Gateway	time.vmware.com	UDP 123	To periodically check whether the time is synced with the NTP server.
vCenter	VMware Cloud Gateway	5010-5019	Log collection

Figure 7-1. Port Requirements for vSphere+



Install VMware Cloud Gateway Using the GUI

Download and install VMware Cloud Gateway to access solutions available from VMware Cloud.

Procedure

- 1 Log in to <https://customerconnect.vmware.com/downloads/details?downloadGroup=MCGW&productId=1307&rPId=88960> and download the ISO image for VMware Cloud Gateway.
- 2 In the installer ISO image, browse to the `ui-installer/operating_system` folder, and run the installer.
 - For Windows OS, go the `win32` subdirectory and run the `installer.exe` file.
 - For Linux OS, go to the `lib64` subdirectory, and run the `installer` file.
 - For Mac OS, go to the `mac` subdirectory and run the `Installer.app` file.
- 3 Click **Deploy VMware Cloud Gateway**.
- 4 Accept the End User License agreement and click **Next**.
- 5 Specify the deployment parameters according to the VMware Cloud platform and click **Next**.

Option	Steps
You can connect to a vCenter instance and browse the inventory to select the cluster on which to install VMware Cloud Gateway.	1 Enter the fully qualified domain name (FQDN) or IP address of the vCenter instance.
	2 Enter the HTTPS port of the vCenter instance.
	3 Enter the user name and password of user with vCenter Single Sign-On administrative privileges on the vCenter instance, for example, the <code>administrator@your_domain_name</code> user.
	4 Click Next .
	5 Verify that the certificate warning displays the SHA1 thumbprint of the SSL certificate that is installed on the target vCenter instance, and click Yes to accept the certificate thumbprint.
	6 Select the default VM Folder in the data center where the cluster resides and click Next .
	7 Select the cluster where the vCenter you plan to subscribe to vSphere+ is deployed, and click Next .

- 6 Set up the target VM and click **Next**.

Option	Description
VM name	Enter a name for the VMware Cloud Gateway VM. The VM name must not contain a percent sign (%), backslash (\), or forward slash (/) and must not be more than 80 characters in length.
Set root password	Set a root password for the VMware Cloud Gateway VM. The password must contain only lower ASCII characters without spaces, at least eight characters, a number, uppercase and lowercase letters, and a special character. A few examples of special character are, an exclamation mark (!), hash key (#), at sign (@), or brackets ().
Confirm root password	Confirm the password you set above.

- 7 Select the datastore location for VMware Cloud Gateway and click **Next**.
 - a Select the datastore where you want to place the VMware Cloud Gateway VM.
 - b Select **Enable Thin Disk Mode** to conserve disk space by installing VMware Cloud Gateway using a thin disk.
- 8 Configure the network settings for VMware Cloud Gateway and click **Next**.

Parameter	Description
Network	Select the network. The networks displayed in the drop-down menu depend on the network settings of the target server. If you are installing VMware Cloud Gateway directly on an ESXi host, non-ephemeral distributed virtual port groups are not supported and are not displayed in the drop-down menu.
IP version	Select IPv4. VMware Cloud Gateway does not support IPv6.
IP assignment	Select how to allocate the IP address. <ul style="list-style-type: none"> ■ static The wizard prompts you to enter the IP address and network settings. Note Avoid using an IP address as a system name. If you use an IP address as a system name, you cannot change the IP address and update the DNS settings after the installation. ■ DHCP A DHCP server is used to allocate the IP address. Select this option only if a DHCP server is available in your environment.
FQDN	Enter an FQDN for VMware Cloud Gateway.
IP address	If you selected a static IP address, enter the IP address for VMware Cloud Gateway. If you enter an IP address that already exists, the installer warns you that this will cause an error in the installation unless you isolate the network where VMware Cloud Gateway is on. For example, you can install VMware Cloud Gateway on a different port group from the existing IP address.
Subnet mask or prefix length	Enter the subnet mask or prefix length for the IP address.
Default Gateway	Enter the default gateway that VMware Cloud Gateway should use.
DNS Servers	Enter the addresses of the DNS servers used by VMware Cloud Gateway.

- 9 Configure VMware Cloud Gateway settings and click **Next**.
 - Select **Synchronize Time with NTP servers** and enter the address of one or more NTP servers in the text box to use NTP servers for time synchronization.
Note Ensure that you enter the correct address for the NTP servers. Otherwise, the installation may not complete successfully.
 - Select **Synchronize Time with ESXi host** to synchronize time with the host where you are installing VMware Cloud Gateway.
- 10 Click **Finish** to install VMware Cloud Gateway.

Results

VMware Cloud Gateway is installed in your on-premises environment.

What to do next

Complete the steps given in the [Connect Your vCenter to VMware Cloud Gateway](#) section.

Install VMware Cloud Gateway Using the CLI

Use the command-line installer to script or automate your VMware Cloud Gateway installation.

Use the command `vcgw-deploy` to install VMware Cloud Gateway from the command line. In addition to installing VMware Cloud Gateway, you can use `vcgw-deploy` to validate your installation templates and run pre-checks on your installation. For a full list of `vcgw-deploy` options, run **`vcgw-deploy install --help`**.

Procedure

- 1 Log in to the [VMware Cloud Gateway Download](#) page and download the ISO image for VMware Cloud Gateway.
- 2 Prepare a JSON template for the installation.
 - a In the installer ISO image, browse to the `cli-installer/templates` directory.
This directory contains sample JSON templates for installing VMware Cloud Gateway either directly on an ESXi host or through a vCenter system.
 - b Copy a template to a working directory and edit it to include the necessary parameters.
For more information about available template parameters, invoke the installer with the option `--template-help`. For example, on Windows, enter **`vcgw-deploy.exe install --template-help`**.
- 3 From the command line, change directory to the `cli-installer` directory and run the installation prechecks.
 - For Windows OS, enter **`vcgw-deploy.exe install path-to-template --precheck-only`**.
 - For Linux OS, enter **`vcgw-deploy install path-to-template --precheck-only`**.
 - For Mac OS, enter **`vcgw-deploy install path-to-template --precheck-only`**.

The prechecks identify problems with the template and parameters provided, so that you can fix any errors before launching the installation.
- 4 Launch the installer.
 - For Windows OS, enter **`vcgw-deploy.exe install path-to-template --accept-eula`**.
 - For Linux OS, enter **`vcgw-deploy install path-to-template --accept-eula`**.

- For Mac OS, enter `vcgw-deploy install path-to-template --accept-eula`.

What to do next

Connect VMware Cloud Gateway to VMware Cloud

Connect VMware Cloud Gateway to a VMware Cloud Organization to enable communication between VMware Cloud Gateway and VMware Cloud.

Prerequisites

- You must be the owner of the Organization that you register with VMware Cloud Gateway.
- Ensure that your web browser is not blocking popups.

Procedure

- 1 In a web browser, go to `https://gw-address:5480/gw-platform` where *gw-address* is the IP address or FQDN of VMware Cloud Gateway.
- 2 On the **VMware Cloud** card, click **Get Started**.
- 3 On the **Connect VMware Cloud Gateway** card, click **Connect** and log in with your VMware Cloud Gateway credentials.
- 4 Click **Launch VMware Cloud Services** and log in with your VMware Cloud credentials.
- 5 Select the Organization you want to connect and click **Confirm Connection**.

Note You cannot change the Organization after the registration is complete. Ensure that you select the correct Organization.

- 6 Enter the code displayed in the VMware Cloud Gateway interface and click **Submit**.

Connect Your vCenter to VMware Cloud Gateway

Connect your vCenter to VMware Cloud Gateway to monitor your vSphere infrastructure from vSphere+.

When you connect your vCenter to VMware Cloud Gateway, it establishes a connection between your vCenter and vSphere+.

Prerequisites

Ensure that the time is in sync between your vCenter and VMware Cloud Gateway.

Procedure

- 1 In a web browser, go to `https://gw-address:5480/gw-platform/` where *gw-address* is the IP address or FQDN of VMware Cloud Gateway.
- 2 On the VMware Cloud card, click **Launch**.

- 3 On the **Connect vCenter Servers** card, click **Connect**.

VMware Cloud Gateway uses the credentials only for authentication purposes and does not store the information.

- 4 Click **Add vCenter Servers** and enter your vCenter details.
- 5 (Optional) If you want to add multiple vCenter instances, click **Add vCenter Servers** again and enter your vCenter details.
- 6 Click **Next**.
- 7 Select the check box to accept your vCenter sending data to VMware Cloud.
- 8 Click **Connect N vCenter Server** where *N* is the number of vCenters that you want to connect.

What to do next

When the registration is complete, you can monitor your vCenter instances from the VMware Cloud Console. To view all the vCenter instances, log in to <https://vmc.vmware.com> and click **Inventory**.

vSphere+ adds a few roles prefixed with **CloudServicesGateway** in your vCenter. These roles enable vSphere+ to manage your vCenter. Do not modify or delete these roles.

Subscribe Your vCenter to vSphere+



To unlock all the capabilities of vSphere+, subscribe your vCenter to vSphere+.

When you subscribe your vCenter to vSphere+:

- vSphere license keys cannot be used in vCenter instances that are subscribed to vSphere+. You can continue to use licenses of other VMware products such as VMware Site Recovery Manager™ and VMware vSAN™.
- All the hosts connected to this vCenter are billed to vSphere+.
- You can configure and manage vSphere with Tanzu by using Tanzu Standard Runtime Edition included in your vSphere+ subscription. See [vSphere with Tanzu Configuration and Management](#). For more information about Tanzu Standard Edition, see [VMware Tanzu Documentation](#).

Important

- You cannot unsubscribe a vCenter from vSphere+.
- If you want to manage hosts licensed with license keys, deploy a new vCenter. You cannot reuse a subscribed vCenter.

Prerequisites

- Ensure that your vSphere environment meets all the requirements. See [Chapter 2 System Requirements for vSphere+](#).

Procedure

- 1 Log in to the VMware Cloud console at <https://vmc.vmware.com>.
- 2 Click **Inventory**.
- 3 Subscribe your vCenter by using either of the following methods:
 - In the notification, click **Subscribe** and select **vCenter instances**.
 - Click the individual vCenter in the list, and then click **Subscribe**.

What to do next

You can now manage your vCenter updates from the VMware Cloud Console. See [Chapter 10 Enable Updates for Your vCenter](#).

Set Up vSphere+ Authentication

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To activate single sign-on and to perform operations such as create and protect VMs, you must set up common authentication between the on-premises vCenter and VMware Cloud. vSphere+ supports federated authentication to sign in to the VMware Cloud Console. You can configure your external identity provider such as Microsoft Active Directory (AD) or Okta to set up enterprise federation.

To use an external identity provider for both your vCenter and vSphere+, you must first configure the vCenter instances with the identity provider.

- For AD, see: [Add or Edit a vCenter Single Sign-On Identity Source](#).
- For Okta, see: [Configure vCenter Server Identity Provider Federation for Okta](#).

After you configure vCenter instances with the external identity provider, you must federate the external identity provider with VMware Cloud. You can use only one federation with one identity provider. For example, If you already federated AD with vSphere+ and you now want to federate Okta, you must first remove the AD federation and then federate Okta with vSphere+.

For AD, you must implement the connector-based authentication setup, and federate the AD domain that you use to log in to the local vCenter instances with vSphere+.

For Okta, you can use the dynamic (connectorless) authentication setup.

Setting up federation is a self-service process that involves multiple steps, users, and roles. See [Setting Up Enterprise Federation with VMware Cloud Services](#).

Enable Updates for Your vCenter

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After you convert your vCenter to subscription, you can manage your vCenter updates from the VMware Cloud Console in a single click. With the pre-update checks significantly reducing the operational effort and maintenance window, you can plan for updates more frequently and keep your vCenter up-to-date with all new features.

Note Use VMware Cloud Console only to update vCenter instances that are not managed by VxRail Manager. If you are using VxRail with VxRail Manager managing the vCenter, use VxRail Manager to update the vCenter.

To manage updates for your vCenter from the VMware Cloud Console, as a one-time activity, you must provide the following network configuration details for each vCenter:

- Temporary network: The network for communication between the new appliance and the appliance you want to update.
- Troubleshooting network: The network for troubleshooting any update issues if the vCenter is unreachable.

Prerequisites

- Ensure that your vSphere environment meets all the requirements. See [Chapter 2 System Requirements for vSphere+](#).
- Ensure that the Active Directory (AD) domain that contains the vCenter roles and privileges is federated with VMware Cloud. You must implement the connector-based authentication setup. See the [Setting Up Enterprise Federation with VMware Cloud Services Guide](#).
- For vCenter instances in high availability (HA) mode:
 - Only vCenter HA instances with **Automatic** configurations are supported. vCenter HA instances with **Manual** configurations are not supported.
 - If the vCenter version is earlier than 8.0 Update 2, then the active vCenter, passive vCenter, and VMware Cloud Gateway must be in the same cluster. If the vCenter version is 8.0 Update 2 or later, then the active vCenter, passive vCenter, and VMware Cloud Gateway can be in different clusters.

- Ensure that the vCenter including the management vCenter is on the latest 7.x or 8.x patch.
 - a Download the latest version of the vCenter by using the **Downloads** option in the VMware Cloud Console. See [Download Software Binaries](#).
 - b Update your vCenter to the latest version. See the [vCenter Server Upgrade](#) documentation.
 - c Depending on the upgrade path of your vCenter version, you might have to back up and restore the vCenter after the update. See <https://kb.vmware.com/s/article/87864>.
- If you plan to choose **DHCP** for IP assignment, ensure that the MAC Address Changes policy is set for all the hosts in the management cluster. See [Configure the Security Policy](#).
- Verify that the network configuration meets the following requirements:

Network	Requirement
Temporary Network	The temporary network and the vCenter network must be in the same subnet.
Troubleshooting Network	<ul style="list-style-type: none"> ■ Choose a network that is not already connected to the vCenter for other purposes, such as backup and restore. ■ The troubleshooting network must be on a subnet and VLAN different than the vCenter and VMware Cloud Gateway. ■ The troubleshooting network must be routable from the vCenter network.

Procedure

- 1 Log in to the VMware Cloud Console at <https://vmc.vmware.com>.
- 2 Use either of the following methods to navigate to the **vCenter Updates** tab:
 - In the Enable Updates for vCenter notification, click **Enable Updates**.
 - Go to **Inventory**, select the vCenter, and then click **vCenter Updates**.
- 3 If the vCenter is self-managed, enter the network configuration details for both temporary network and troubleshooting network.

If the vCenter is configured for HA, for the temporary network IP assignment, select **Static**.
- 4 Click **Apply**.

Results

- vSphere+ creates a management resource pool and reserves the required hardware in the management cluster for vCenter updates. The vCenter and VMware Cloud Gateway are moved to the management resource pool. Do not change these management resource pool configurations. Do not move the vCenter out of this cluster.
- vSphere+ reserves the required CPU and memory in vCenter and VMware Cloud Gateway VMs for future updates.

What to do next

- Monitor your vSphere inventory, and explore vSphere+ services. See [Using and Managing vSphere+](#).
- Whenever an update is available for your vCenter, vSphere+ displays a notification. You can update your vCenter from the VMware Cloud Console. See [Update Your vCenter Server](#).

Use the Contextual Help

11

The VMware Cloud in-product support panel provides content to help you perform your tasks and search for answers to your questions. You can also create support requests.

The contextual help topics contain just enough information to assist you with your tasks. You can also search for related topics. Search results include more help topics, Knowledge Based articles, content from our Documentation Center, and content from our communities.

- 1 Log in to the VMware Cloud Console at <https://vmc.vmware.com>.

- 2 Open the Support panel by clicking the ? icon at top-right of the console.

As you work your way through your tasks, and move from page to page, the help content changes accordingly.

- 3 To view more related content, click **View more in VMware Docs** or enter a related keyword in the Search field.

The results are displayed in VMware Documentation Center.

- 4 If you want to get help from VMware Support, click **Create a Support Request**.

For detailed instructions on creating a new support request, see [Chapter 12 Create a Support Request](#).

Create a Support Request

12

The VMware Cloud in-product support panel provides content to help you perform your tasks and search for answers to your questions. You can also create support requests.

Procedure

- 1 Log in to the [VMware Cloud Services Console](https://console.cloud.vmware.com/) at <https://console.cloud.vmware.com/>.
- 2 Click **Support Requests**.
- 3 Click **Create a Support Request**.
The **VMware Support** page on Customer Connect opens.
- 4 Under Technical Support, click **Request Support**.
- 5 In the product location drop-down, select **VMware Cloud Services (CSP)**.

For more information about creating a new support request, see [How to file a Support Request in Customer Connect and via Cloud Services Portal](#).