Hewlett Packard Enterprise

Reference guide

HPE CLOUDPHYSICS OBSERVER INSTALLATION AND TROUBLESHOOTING

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HOW TO: INSTALL THE HPE CLOUDPHYSICS VIRTUAL APPLIANCE

The new HPE CloudPhysics virtual appliance (**Observer**) allows for new features that enable customers and partners to get a richer analytics experience, expand supported VMware vCenter® configurations, and provide added security to the collection process. For most organizations, the process of deploying and configuring the Observer will be less than five minutes. Note: An individual with VMware vSphere® experience and credentials to deploy the Observer is required. One HPE CloudPhysics virtual appliance is required per VMware vCenter.

What's new

We have made the following updates to the new HPE CloudPhysics virtual appliance:

1. VMware vCenter 7.0 support.
2. Requires a **token** per appliance during deployment to associate each appliance with the organization. This will eliminate using the primary account email address from the registration process and allow you to associate appliances with organizations instead of individuals while adding an added level of security and authentication to each appliance's communication with HPE CloudPhysics.
3. Improved security—The new appliance has several security updates and enhancements to reduce attack surfaces and update legacy software and requires higher levels of authentication for organizations to access HPE CloudPhysics.
4. Added vCenter Platform Services Controller™ (PSC) for complex deployments.
5. Added vCenter tag collection to import resource tags directly from vCenter versus creating them within the HPE CloudPhysics UI.
6. Reduced the resource requirements for data collection.
7. Improved vCenter 6.5/6.7 support—The new appliance has new API interfaces to take full advantage of vCenter 6.5 and 6.7.
8. Optional guest process discovery, installed packages, and dependency map data collection.

All of these are available in the new Observer. The details of installation and configuration instructions are as follows.

Installing the HPE CloudPhysics virtual appliance

It takes just a few minutes to deploy your HPE CloudPhysics data collector virtual appliance (**Observer**). Watch the video or read the step-by-step instructions in the following to learn how. If you need help, email CloudPhysics Support Team for assistance.

Deploy the Observer virtual appliance

Upon logging in to HPE CloudPhysics, you will be prompted to install our Observer. The Observer establishes the metadata connection between your data center and HPE CloudPhysics. One HPE CloudPhysics virtual appliance is required for each vCenter you wish to collect. The HPE CloudPhysics appliance has the following resource requirements once deployed:

HPE CloudPhysics appliance resource requirements

- HPE CloudPhysics supports VMware vCenter Server® 4.1 through 7.x
- Download size of OVF/OVA: Approx. 180 MB
- Guest OS: Debian Linux® 8 64-bit
- vCPU: 2
- vRAM: 8192 MB
- VMXNET3 network interfaces: 1
- Size of deployed volume: 13 GB
- Local vHDD1 system: 1 GB
- Local vHDD2 data: 12 GB
- Network access to vCenter
- Internet access to HPE CloudPhysics through port 443
- vCenter account with read access (see vCenter Server credentials in the following)

Installation steps

1. Select your preferred installation media for the virtual application (OVF or OVA). To use the OVF, copy the location URL to your clipboard or active memory and use it within VMware vCenter to import a new virtual appliance. To use the OVA, download the OVA file to your local system or a shared storage accessible from vCenter.

   OVF URL for vCenter: download.cloudphysics.com/observer/observer.ovf

   Download OVA: download.cloudphysics.com/observer/observer.ova

   a. Switch to the VMware vCenter client or web interface.

   b. Using the vCenter menu, navigate to **File > Deploy OVF Template** to deploy from the OVF URL or specify the OVA file you downloaded to import the appliance from local storage.

   c. Proceed with vSphere client prompts to complete the installation.

   d. Provide an appliance name and deployment location.

   e. Choose a host or cluster.

   f. Choose a datastore with a minimum of 12 GB of available space.

   g. Accept the disk configuration.

   h. Choose a network.

   i. If you wish to use a static IP address, specify the default gateway, DNS, static IP address, and network mask for the appliance within vCenter.

   j. Review the settings and choose **Power On After Deployment** to start the virtual machine.

   k. Wait for the virtual appliance to deploy.

   l. When the appliance is deployed, open the console view of the virtual appliance to complete the configuration.

NOTE

VMware® upgraded the default hash algorithm from SHA1 to SHA256 for OVA generation. The older vSphere / VMware ESXi™ clients only support the SHA1 hash. HPE CloudPhysics is aware of this change and is working on a new OVA/OVF that will satisfy the new vCenter 7.x hashing validation. kb.vmware.com/s/article/2151537

Configure the observer virtual appliance

You're almost done. Post-installation, you need to activate the Observer virtual appliance with a quick configuration.

2. In vSphere client inventory, select the Observer virtual appliance and power it on.
3. Open the virtual appliance console view.
4. Complete the configuration steps, detailed in the following. Note the required steps.

Activation Data	Required?	Example
EULA	Required	Click to accept
Platform Services Controller (PSC)	Optional	E.g. "vcenter.company.local" This is used for vCenter 6.0 and above with a Platform Services Controller deployed.
Select A vCenter Server	Optional	Choose an existing vCenter server name from the pick list of presented with this option. (vCenter 6.0 and Above)
vCenter Server, Username, and Password	Required	E.g. "Vcenter.company.local". This may be pre-populated from the PSC selection above. "Bjones" " ******** " Tip: Windows style credentials may requires "domain\user" format.
Guest User and Guest Password for Dependency maps and guest processes discovery.	Optional	E.g. "company.local\guestacct", " ******** " Note: You can provide credentials for Windows, Linux, and Other OS. Tip: Use the format supported by your environment. "Domain\user", "user@domain.local", and simple user are all valid credentials depending on your environment and authentication model. It is also possible to have no local access credentials available, so this section is optional.
HTTP Proxy Server	Optional as Needed	E.g. Proxy: 192.168.00.00 Tip: This is only needed if vCenter Server needs a proxy to reach the internet.

HTTP Proxy Port	Optional as Needed	E.g. 8080
HTTP Proxy User, Password and Domain	Optional as Needed	E.g. Proxy User "bjones" Proxy User Password " ******** " Proxy Domain: "domain.company.com" Tip: This is only needed if you have a proxy server which requires credentials. E.g. Blue Coat ProxySG.
Organization Token	Required on initial configuration.	E.g.: AA11-BB22-ZZ99 This token is available from your HPE CloudPhysics Welcome Page (app.cloudphysics.com/welcome) for new users and from the HPE CloudPhysics Status Page (app.cloudphysics.com/observer-status/vsphere/token) for existing users. This token is unique per organization and valid for only 24 hours and used for organization account selection. Optional after initial configuration and the appliance is already associated with an organization.

Account validation and organization tokens

HPE CloudPhysics now leverages an organization token to ensure Observers are associated with the correct organization much like two-factor authentication. This adds an extra level of validity to Observers for partners and third parties who deploy multiple Observers to customer organizations. Tokens are valid for only 24 hours after being generated. A single token can be used multiple times within the 24-hour window to deploy multiple Observers within an organization. This process will result in an Observer being associated with an organization and not a single email address or individual.

The token adds additional security and ensures that only data from your validated Observers are sharing data with HPE CloudPhysics. Please see "How to: activate the CloudPhysics virtual appliance with a token" below.

Application discovery and dependency discovery settings (optional)

New options for guest OS application process discovery leverage a guest account and VMware Tools™. A guest process list and network connectivity data are collected by requesting data from the VM through the VMware Tools interface to vSphere. This data collection and analytics is optional to the user, and not recommended for organizations with many virtual machines (more than 3,000). Process discovery allows for automatic tagging of applications and classification of workloads. This feature will require you to provide a local guest OS account credential. This account does not need to be a vSphere admin or a domain admin account. It simply needs local guest access to view running processes. In many cases, this may be a local guest account or a domain account. **Note that VMware Tools are required to be present and enabled along with an elevated security policy for the Observer account to allow these features**.

vCenter server credentials

HPE CloudPhysics recommends the creation and use of a dedicated vCenter Server service account for use with our Observer virtual appliance. For best results, the service account should have administrator-level permissions and be configured to read-only. The vSphere administrator's credentials will also work here. If the creation of a new user role and account is not an option, the HPE CloudPhysics account can use any vSphere admin account with sufficient privileges to read from the required resources.

If there is sensitivity to using an administrator user credential set, a semi-privileged user role can be created for use. This role can be applied to a user credential set with minimal permissions to provide the access needed to use HPE CloudPhysics. The resulting user is much less privileged than an administrative user.

This user role can be created as follows:

1. In the vSphere client, go to **Roles**.
2. Create a new role, for example, HPECloudPhysicsUser.
3. Edit privileges and enable (check off) the following. Note: Depending on versions and vSphere client versions, you may find slight variations on the permission names mentioned in the following.
4. In all cases, unless stated otherwise, all permissions require read access only.

For reference, vSphere Defined Privileges can be viewed at:
docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.security.doc/GUID-ED56F3C4-77D0-49E3-88B6-B99B8B437B62.html

Credentials for vCenter

Global Privileges

vSphere 4-6.x

- Global Service Managers

vSphere 7.x

- Global Service Managers

Host CIM Privileges

vSphere 4-6.x

- Host CIM Interaction (Host.Cim.CimInteraction)

vSphere 7.x

- Host CIM.CIM Interaction

Host Configuration Privileges

vSphere 4-6.x

- Host Advanced Configuration (Host.Config.AdvancedConfig)
- Host Configuration Patch (Host.Config.Patch)

vSphere 7.x

- Host.Configuration.Advanced Settings
- Host.Configuration.Query patch
- Host.Configuration.Storage partition configuration

Datastore Privileges

vSphere 4-6.x

- Datastore Browse (Datastore.Browse)
- Host Configuration Storage (Host.Config.Storage)

vSphere 7.x

- Datastore Browse (Datastore.Browse)

If you plan to use Dependency Discovery or Guest Process Identification, additional vCenter Policy settings will be required. This is an elevated level of Virtual Machine security to allow VMware Tools to gather guest data. These features will require VMware Tools be present and enabled in the guest operating system.

Virtual Machine Guest Operations Privileges

vSphere 4-6.x

- VirtualMachine.GuestOperations.Query
- VirtualMachine.GuestOperations.Execute
- VirtualMachine.GuestOperations.Modify

vSphere 7.x

- Virtual machine.Guest Operations.Guest Operation Queries
- Virtual machine.Guest Operations.Guest Operation Program Execution
- Virtual machine.Guest Operations.Guest Operation Modifications

Save the new role.

Next, associate this role to the user to also have the HPECloudPhysicsUser role and save.

The read-only, non-admin user now has the appropriate privileges needed to use HPE CloudPhysics.

Troubleshooting

Most issues are common misconfigurations, which are easily resolved. See the following table for common issues and resolutions. If you still need assistance, contact CloudPhysics Support Team.

I don't have a VMware vCenter, can I still collect data?	No. A VMware vCenter is required for data collection.	To eliminate load on ESXi hosts and VMs, HPE CloudPhysics collects its data directly from VMware vCenter. We leverage the security policies and permissions through the vCenter API. This is required for data collection.
Data is not appearing in HPE CloudPhysics	Have you completed vApp configuration less than 15 minutes ago?	Allow 15 minutes for the first upload of data to populate your HPE CloudPhysics account.
Appliance is only collecting one VMware vCenter of data	Each appliances supports a single VMware vCenter for data collection.	One HPE CloudPhysics virtual appliance is required per VMware vCenter. If you have 6 VMware vCenters, you will require 6 appliances configured for individual environments. This ensures scalability. An appliance cannot collect from more than one VMware vCenter.
Cannot connect HPE CloudPhysics Observer to vCenter	Network Access?	Ensure the HPE CloudPhysics Observer is on a network segment that has network access to the vCenter you wish to monitor.
My Observer will not activate	Network Access?	Ensure the HPE CloudPhysics Observer is on a network segment that has internet access and does not block port 443. If you require a Proxy, be sure to configure the proxy settings in the observer config.
I run vCenter 6.0 or Older	Observer Setup	Check the setup box for vCenter v6.0 and older during the setup. This will use the legacy APIs to collect data from vCenter. This will limit your ability to collect TAGS and other vCenter 6.5/6.7 specific resources.
I am not getting Guest Process Data	The Observer Setup, Guest OS Credentials	To ensure Guest Processes are collected correctly, you will need to use a guest account that is common to either all VMs or a domain account that has permissions to your VMs. Many organizations have a limited access domain account for this purpose. Specify the account in the format that is required for your OS and a valid password. Valid formats for the guest user may be in the form of guestuser@domain.local, domain.local\guestuser, or simply guestuser.
I am not getting Guest Process Data	VMware Tools Not Installed	Guest Process collection requires VMware Tools to be installed and enabled in the Guest OS to collect. Ensure your VMs have up to date VMware Tools installed and enabled.
I need a Static IP Address	Observer import step missed	You can specify a static IP Address during the Observer import process for vCenter. Specify a Static IP Address, Default Gateway, and DNS. Be sure the IP Address you specified has not already been deployed to a different network resource.
My Observer will not connect to the vCenter or I have no IP Address	DHCP not working	When defining the network interfaces while deploying the Observer appliance, leave all the Network fields blank to allow vCenter to deploy the appliance to use DHCP. If you deployed the Observer and specified a DNS Server, Subnet Mask, or default router, it is possible vCenter did not provide a DHCP address since values were already provided for the other fields. Redeploy the Observer and leave all the fields blank to ensure DHCP is used. If you intend to define any fields, you must define them and the result will be a Static IP Address.
I am not getting vCenter Tags	vCenter Version needs to be v6.x and above	Tag collection is only supported with vCenter v6.x and above.
Where do I enter my email address?	Old Observer version	The 1.x versions of the HPE CloudPhysics Observers leveraged an account email address for account validation. This method is no longer supported in the v2.x Observer. If you have an older version of the virtual appliance, use the latest OVF appliance at download.cloudphysics.com/observer/observer.ovf and switch to the token based activation.
	The email user ID in your Observer virtual appliance is different than the email address you registered. This creates a data mismatch.	Open your Observer VM console and confirm/change your email ID to be equal to the email address you registered with HPE CloudPhysics.
	The Observer data payload cannot reach the internet.	Your organization may require a proxy to reach the internet. View your vApp console to edit and provide a proxy server and port number.
	The Observer data payload cannot reach the internet.	If your organization uses a proxy server, this server may require credentials in order to allow access to the internet. If this is the case, view your vApp console, edit, and provide the proxy server credentials and domain as needed.
Data stopped appearing in HPE CloudPhysics	Your vCenter Server user credentials have expired or were revoked.	Check that the password for the Observer user account is correct. Password expiration policies can be the cause. Alternately, if a personal user credential was used, and that person no longer works for your company, this credential may have been revoked. Update with a service account or other new credentials.
	Observer vApp has been powered-off or suspended.	In vSphere Client, power the Observer vApp back on.
	An admin for your account chose to exclude this Observer on the status page.	Email cloudphysicssupport@hpe.com for assistance. Please describe your issue in detail.
	Your Observer IP Address is no longer valid.	This can occur for static and DHCP addresses if mismanaged. View your vApp console to check settings. Note: To change IP settings, you must first power-off the vApp before you can make changes with "Edit Settings > Options > IP Properties".

	Your vCenter Server name may have changed.	If so, view your vApp console and edit the vCenter Server name to the new name.
I am unable to log in to HPE CloudPhysics	Forgot your password?	At app.cloudphysics.com, click on "I forgot my password" to request a password reset.
	You were removed from this account.	Your HPE CloudPhysics admin may have removed you from this account. Please inquire with this person.
I am not getting Dependency Map Data	VMware Tools/Open Tools Required	HPE CloudPhysics collects data from the Guest OS by issuing commands to vCenter to request data from the Guest OS through VMware Tools. Tools version 10.x and above must be present in the Guest OS to collect dependency data. See the Dependency Map FAQ for more details. cloudphysics.com/dependency-map-faq/
	No Temp Directory Present	VMware Tools and Open Tools will store temporary data from the request in a TEMP folder. This folder is often located in a common folder on the host with a TEMP or TMP environment variable pointing to the path. It is possible that the local user is using a user home path with a contained TEMP folder that has not yet been defined, example: temp = %home%/%user%/temp/, if this is the case, it may be that the user account has never logged into the guest OS and that the temp path has never been created. If you use a login script to create user home directories or specify a temp path, VMware Tools may not have access to such a path if the user has never logged into the system to create the directories. The user TEMP path must already exist. A global TEMP path should be defined for all users as a backup path in the event the user specific path does not exist.

HOW TO: ACTIVATE THE HPE CLOUDPHYSICS VIRTUAL APPLIANCE WITH A TOKEN

Steps to locate your activation token and apply it to your virtual appliance

During the HPE CloudPhysics virtual appliance (**Observer**) deployment, you will be prompted to provide a **token** to validate your appliance against your account to ensure the security and privacy of your data. This token is used to pair your appliance to your HPE CloudPhysics account in the final steps of your setup.

Tokens are available through the HPE CloudPhysics portal and are valid for 24 hours. Each token can be used multiple times in that 24-hour period to activate as many appliances as you may need to deploy. Once an appliance is activated, it will no longer need a token unless you wish to change the configuration or redeploy the appliance. A new token can be requested from the portal every 24 hours and will remain unchanged in the portal during that period. If your token is expired, simply log back in to HPE CloudPhysics and request a new token by clicking the Reveal Token link in the text box located on the left-hand side of the page containing the deployment instructions.

This token is available as follows:

- **New accounts:** From the HPE CloudPhysics Welcome page by clicking the **Reveal Token** (app.cloudphysics.com/welcome)
- **Existing accounts:** From the HPE CloudPhysics Status page on the left-hand side of Installation Instructions and by selecting the **Reveal Token** link (app.cloudphysics.com/observer-status/vsphere/token)
- **Partners:** You must visit the HPE Partner Portal, and then visit the customer's portal by clicking the customer's account name. Once you are in the customer's account, visit the HPE CloudPhysics Status page by clicking the **Observer Status** icon at the top of the page near your user name. When you're on the Observer Status page, you will find the orange **Reveal Token** link on the bottom left-hand side of the page.

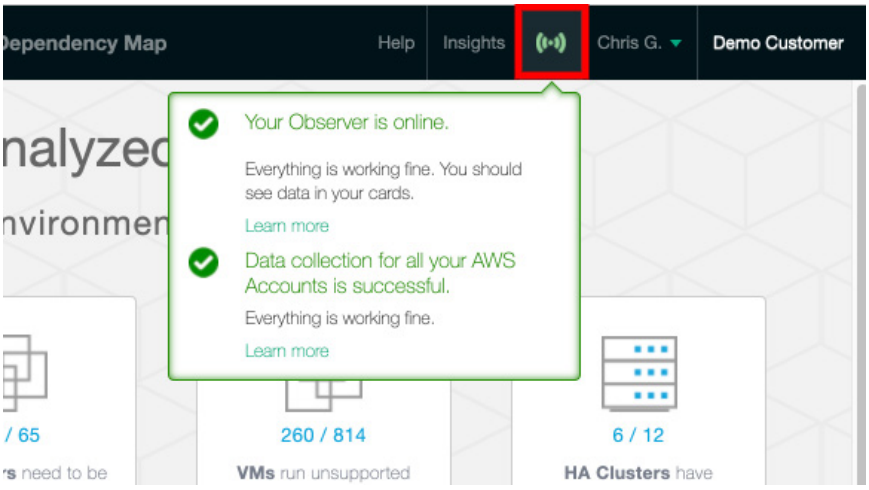

FIGURE 1. Finding the Observer Status page

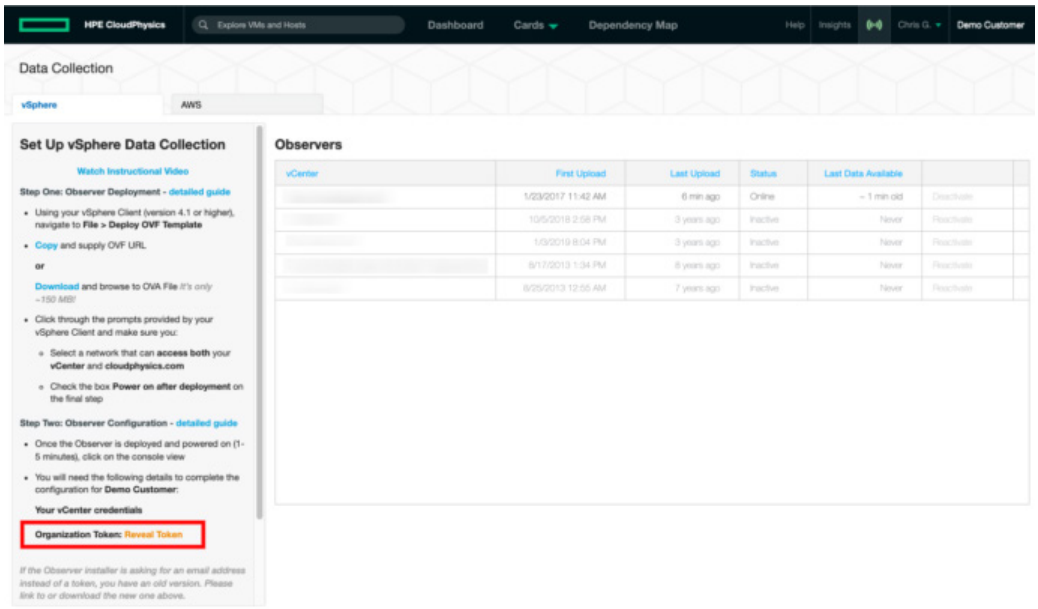

FIGURE 2. Locating the Observer token

FIGURE 3. Reveal token link

FIGURE 4. Token status after a token is revealed

If you need further assistance, contact HPE CloudPhysics support.

HPE CLOUDPHYSICS NETWORK TROUBLESHOOTING GUIDE

The HPE CloudPhysics virtual appliance is an on-premises data collection tool that requires both local and internet access to operate. This short list of troubleshooting scenarios will assist you in identifying where your network issues may be originating and how to correct them.

First, some requirements/limitations of the virtual appliance.

1. All network settings for the virtual appliance are defined in the VMware vCenter interface during the OVA/OVF deployment.
2. The HPE CloudPhysics virtual appliance uses IPv4 to connect to the network.
3. The virtual appliance requires DNS resolution of internet names.
4. It must be able to reach the VMware vCenter.
5. It must be able to communicate with the public internet either directly or through a proxy configured in the appliance.
6. It has a single network adapter. Note: A special HPE CloudPhysics appliance with dual network adapters can be requested for a VMware vCenter on restricted networks to allow for dual network connectivity (private and public).
7. The virtual appliance does not support VLAN tagging.
8. It does not support IPv6.

Troubleshooting steps

The basics

- Review all of the provided details in the vCenter appliance import interface were correct. Typos are common.
- Review all values in the HPE CloudPhysics appliance console screen to confirm they were correct.
- Note your appliance version at the bottom of the blue text and ensure you're using the latest appliance available from download.cloudphysics.com. You can open the .OVF files in any text editor to view the version number. To view the appliance version, search for **Version** in the OVF file.

Example:

<Version>v2.6.2</Version>

<FullVersion>v2.6.2</FullVersion>Sample CloudPhysics Observer Configuration Status Console Screen:

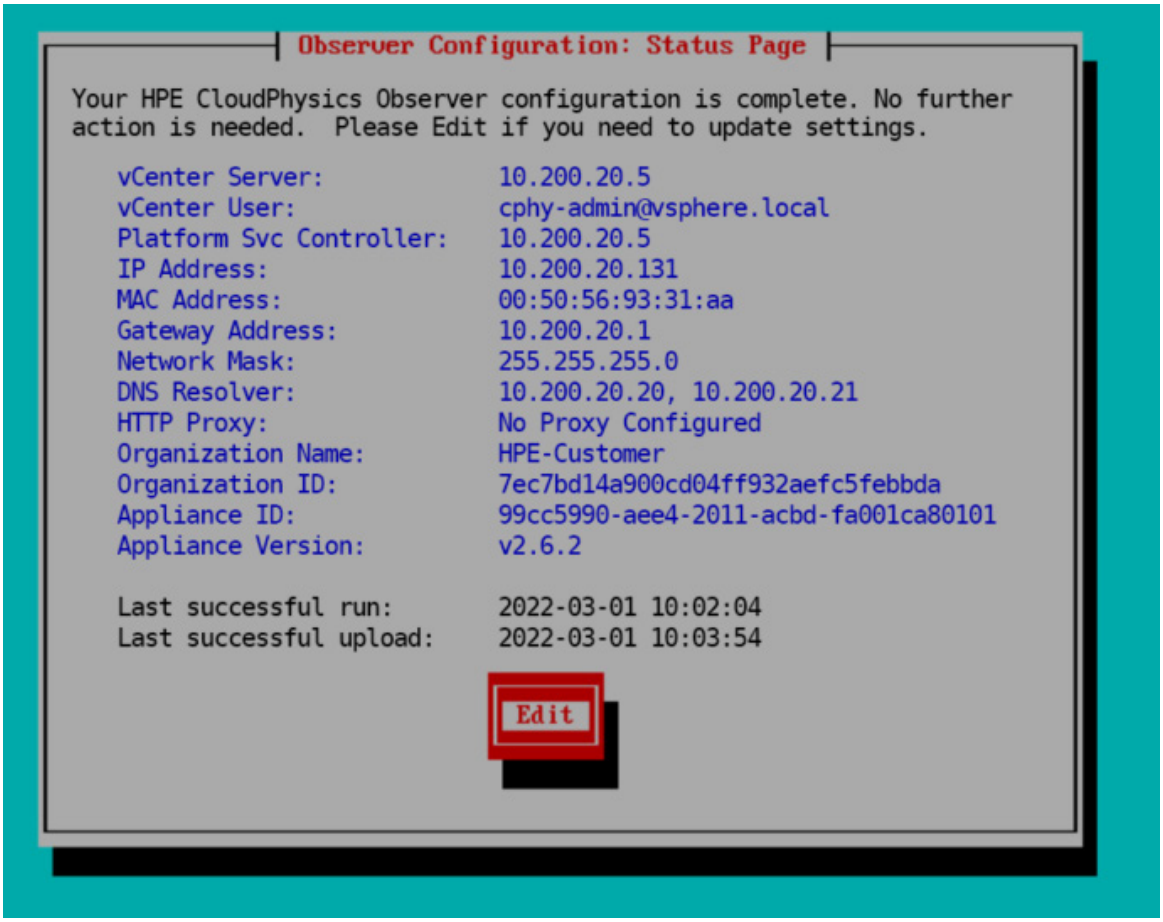

FIGURE 5. Sample HPE CloudPhysics Observer configuration status console screen

Start with a clean OVA/OVF install

First, when all else fails, simply delete the virtual appliance and redeploy a current appliance from a new download from the web (download.cloudphysics.com). This will ensure that all attributes in the OVA/OVF deployment process were specified correctly. The HPE CloudPhysics appliance is stateless and can be deleted and redeployed at any time you feel you need to make a change to the appliance definition or are uncertain about an appliance configuration.

External connectivity firewall rules and proxy settings

Some networks restrict outbound access to secure subnets to a limited set of destinations and protocols or through a proxy server. If this is a requirement for your organization, you will need to enable a rule to allow the HPE CloudPhysics virtual appliance to communicate outbound from the network segment to the following destination: entanglement.cloudphysics.com:443

Your network administrator may be required to validate and complete these rules.

Do not create network rules based on IP address, as this address is not guaranteed to be static due to being a cloud-based software-as-a-service (SaaS) platform and may change in the future. If you must configure an IP address-based rule, ping the network destination to resolve the current IP address. Be aware that you may receive an email notification in the future that the appliance has disconnected and will need to be reconnected to the network. If you receive such a notice, validate the target IP address of the cloud endpoint, and change your network rules accordingly.

VMware vCenter 6.5 and 6.7 HTML client
Note that VMware vCenter 6.5 and 6.7 had some issues defining network attributed during import. OVF support was not yet integrated into HTML 5 client and the flash-based client is no longer supported. If you find that you are unable to view, change, or specify network attributes in VMware vCenter, you can use the alternate method of deploying the VM from the VMware ESXi server web interface. You can deploy directly from ESXi by browsing the ESXi server IP address and logging in with the local admin account to deploy appliances through the local web interface. This will resolve some of the known VMware vCenter issues. If you are having issues deploying the appliance, deploy OVF files using the command line. For more information, see the OVF Tool Documentation.

Defining static or DHCP addresses in vCenter
When deploying the OVA/OVF, you will have the option to specify a static IP address or take advantage of DHCP for a dynamic address for the appliance. Note that vCenter will require all fields to be either left blank for DHCP or all fields to be provided for static IP address. You cannot provide some data and leave other parts blank.

For a static IP address, you will need to specify the following:

Default gateway, DNS, management IP address (VM network IP), management network (subnet mask).

Solution: If any of these values are specified in the OVA/OVF import, VMware vCenter will default to a static IP address and not use any DHCP values. Always define all values if you intend to use a static IP address or leave all values blank if you intend to use DHCP.

Appliance startup timeouts and no IP address
If you open the console immediately after starting the virtual appliance, you will see the OS system check and startup process. After a few seconds, you will see:

Welcome to the Observer.

Please wait while the configuration UI loads.

Observer login:

If the Observer remains on this screen for more than 20 seconds, then the issue is likely that the appliance is not getting an IP address from vCenter. If the appliance is waiting for more than 15 to 20 seconds at the login prompt, this indicates that the network stack is waiting for a network configuration from VMware vCenter. If an address is not assigned, the startup process will time out between 30 and 60 seconds and continue to a Terms of Services screen without assigning the static or DHCP address. Instead, the OS will use a self-assigned address that will not be reachable on your network.

If this situation occurs, confirm the IP address in the VMware vCenter console is displayed and correct.

Solution: The most common cause of this problem is when a network requires a VM to be registered with DHCP or other network management tools by MAC address to assign an IP address. If this situation occurs, reach out to the network management team to determine if there are sufficient IP addresses in the subnet or if an IP address has accurately been assigned to the VM.

Validate VM has an IP address
The most basic validation will be to view the VM summary in vCenter and confirm the presence of a DNS name and IP address. If DHCP or a static IP address was assigned successfully, it will be reflected in VMware vCenter. If no address is found on the VM summary, the appliance is either deployed in a network segment without DHCP or our network IP management system may not have a valid configuration applied to the appliance MAC address. The IP address is assigned by VMware vCenter, so if no address is associated with the VM, the error occurs between VMware vCenter and your network definition or management resources.

Ping the VM from a VM in the same network segment
This is a direct follow-up to the last step to ensure the IP address is visible. Ensure you can ping the IP address of the virtual appliance from another VM in the same network segment or from someplace elsewhere on the network. Ideally, this should originate in the same network segment as the appliance or vCenter to ensure connectivity.

If you are unable to ping the appliance, ensure the network segment is not restricted or other network rules are not blocking the packets.

Is the VMware vCenter PSC reachable by name?
One of the first steps in the appliance setup is to specify the primary VMware vCenter Platform Services Controller (PSC). The first connection attempt should be with a Fully Qualified Domain Name (FQDN). If the VM can connect to the PSC, we now know that the appliance has both a valid IP address and valid DNS. If the name cannot be resolved, it is likely that the DNS is not configured correctly, or the network connection is not present. If we can communicate with the VMware vCenter by FQDN, we have confirmed that the network address is valid and the VM is connected to the network. Any further restrictions would be related to network access ACLS/rules or firewall/proxy filters. Continue to network proxy configuration and firewall rules.

Is the VMware vCenter PSC reachable by IP address?
If we are unable to connect to the PSC by an FQDN, next, we can try and connect to the PSC by the IP address. If the IP address can reach the PSC, then we have an invalid DNS that will restrict access to the HPE CloudPhysics cloud API interface. If the IP address fails to resolve as well, but we can ping the IP address, then we have a network segmentation issue. If we can communicate with the VMware vCenter by IP address, we have confirmed that the network address is valid and the VM is connected to the network. Any further restrictions would be related to network access ACLs/rules or firewall/proxy filters.

Can connect to VMware vCenter, but the outbound proxy server setting is not working
If you can connect to the PSC, but you are getting a notice that you cannot connect to HPE CloudPhysics, you are now at the point where the proxy configuration may be incorrect or there is a network rule restricting outbound access. First, validate that you are providing a proxy server address or name and port in the proper format. Example: Proxy.mycompany.local:8080

Also, validate that a proper user credential is used, if required. This credential may be in the format of username@domain.com or domain\username in the input field. Try both formats.

If a proxy is not required and cannot connect to HPE CloudPhysics
At this point, we have confirmed that we can connect to the VMware vCenter, have a proper IP address, and have a valid DNS setting. If the communication is blocked at this point, the block usually occurs at the network gateway, firewall, or proxy server. Check with the network administrator that the IP address of the virtual appliance is allowed for outbound communications on port 443 to entanglement.cloudphysics.com.

If all else fails:
For additional support, contact CloudPhysics Support Team. Provide us your organization name, some background to the problem, and the steps you have tried to resolve the issue. We will set up a time to work with you to assist in evaluating and resolving the problem.

Recap of troubleshooting steps

1. Define IP address as static or DHCP—all or nothing specific in OVA/OVF import.
2. When the appliance powers up, verify if an address is assigned in the vCenter summary view.
3. Verify how long the appliance takes to get to the Terms of Service screen.
4. Does the appliance have an IP address assigned in the vCenter VM details view? If yes, the VM likely is on the network.
5. Ping the IP address of the appliance. If it does not reply, check if it is segmented or firewalled, or it may have a port not connected to a vSwitch.
6. When you start the appliance configuration, input the vCenter PSC name in first field. If that isn't recognized as the valid name, try the IP address through FQDN. If the IP address isn't recognized, then check if DNS is correctly configured. If you can connect to vCenter but cannot connect to HPE CloudPhysics, the issue typically is DNS, firewall, or proxy rules.
7. Ensure policy or rules for access to entanglement.cloudphysics.com:443
8. When all else fails, delete the appliance and redeploy. It is stateless, so no data will be lost. When deploying, ensure all network fields are blank using DHCP or all fields are provided if you are using a static IP address.

For issues or troubleshooting not included in the document, contact CloudPhysics Support Team.

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