

# vRealize Business for Cloud Troubleshooting Guide

vRealize Business for Cloud Standard 7.6

vRealize Business 7.6

vRealize Business for Cloud 7.6

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# Troubleshooting vRealize Business for Cloud

The *Troubleshooting Guide for VMware® vRealize Business for Cloud* provides guidance on commonly performed activities to troubleshoot problems in vRealize Business for Cloud.

## Intended Audience

This information is intended for anyone who wants to troubleshoot vRealize Business for Cloud.

## VMware Technical Publications Glossary

VMware Technical Publications provides a glossary of terms that might be unfamiliar to you. For definitions of terms as they are used in VMware technical documentation, go to <http://www.vmware.com/support/pubs>.

# Troubleshoot General Problems in vRealize Business for Cloud

# 1

You can troubleshoot general problems such as SSL certificate errors, command errors that might occur when using vRealize Business for Cloud.

This chapter includes the following topics:

- [SSL Certificate Errors After You Add an Endpoint](#)
- [The ESXi Server Cost Is Doubled in vRealize Business for Cloud](#)
- [Unable to Restart Services by Using the `monit restart all` Command](#)
- [Cost Calculation Fails with Multiple Entries with Same Key Error Message](#)
- [Cost Calculation Fails with Failed to Query FactsRepo Error Message](#)
- [Mitigation for Clickjacking in vRealize Business for Cloud](#)

## SSL Certificate Errors After You Add an Endpoint

After you add an endpoint to vRealize Business for Cloud, you see an untrusted certificate error message in the system status or the identity of the endpoint that you have added does not match with its SSL certificate.

### Problem

After you add an endpoint such as a vCenter Server, you see one of the following error messages:

- An untrusted certificate was presented by the server.
- The certificate presented by the server has issues. Rectify the certificate and edit the connection to accept the new certificate.

### Cause

This problem might occur in one of the following situations.

- The SSL certificate of the endpoint has changed and a trusted authority might not have signed the certificate.
- The end point is added by using its IP address instead of host name.

### Solution

- 1 Go to the **Administration** tab in vRealize Business for Cloud virtual appliance.
- 2 Navigate to the endpoint section. For example, **Manage Private Cloud Connections > vCenter Server**.
- 3 Select the endpoint and click the edit option.
- 4 Enter the password of the account and click **Save**.
- 5 View and accept the certificate.
- 6 Log in to the vRealize Business for Cloud as a root user and run the following commands to restart the data collection process.
  - a `monit stop itbm-data-collector`
  - b `monit start itbm-data-collector`

## The ESXi Server Cost Is Doubled in vRealize Business for Cloud

The cost of the ESXi hosts is doubled in vRealize Business for Cloud.

### Problem

While calculating the cost of certain ESXi servers, vRealize Business for Cloud uses the cost value twice.

### Cause

If you migrate ESXi hosts from one vCenter Server to another without deleting the ESXi hosts from the first vCenter Server, the cost of the host is considered once from the source vCenter Server and once from the target vCenter Server.

### Solution

- ◆ To avoid duplication of costs, after you migrate the ESXi host to a new vCenter Server, delete it from the earlier vCenter Server.

## Unable to Restart Services by Using the `monit restart all` Command

When you change the vRealize Business for Cloud host name, you cannot use the `monit restart all` command to restart the services on the host.

### Problem

After you change the vRealize Business for Cloud host name, when you run the `monit restart all` command, the monitored services do not restart.

### Cause

The `monit` command cannot identify the host because of the name change.

### Solution

- ◆ Run the command to restart the `monit` service.

```
systemctl restart monit
```

### Solution

Monit registers the new name of the host and enables you to use the `monit` commands.

## Cost Calculation Fails with Multiple Entries with Same Key Error Message

After upgrading vRealize Business for Cloud, cost calculation might fail.

### Problem

Occasionally, cost calculation for Azure endpoints might fail after vRealize Business for Cloud is upgraded. You might see the `Multiple entries with same key` error message in the server log.

### Cause

This problem appears because of duplicate entries created in the FactsRepo inventory service after the upgrade.

### Solution

- 1 Log in to the vRealize Business for Cloud, using the system administrator credentials.
- 2 Start the Postgres client by entering the following command.

```
/usr/ITFM-Cloud/va-tools/bin/db-client.sh
```

- 3 Enter the following command in the Postgres client.

```
delete from itfm_azure_resource_details where id in (select itfm_azure_resource_details.id
from (select resource_id, month, count(*) from itfm_azure_resource_details group by
resource_id, month having count(*)>1 ) as new_details inner join
itfm_azure_resource_details on
itfm_azure_resource_details.resource_id=new_details.resource_id and
itfm_azure_resource_details.month=new_details.month);
```

- 4 Exit the Postgres client by entering the following command.

```
\q
```

- 5 Log in to MongoDB by entering the following command.

```
mongo
```



- 6 Enter the following command.

```
use fr_system
```

- 7 To get the duplicates from the azure resource collection, enter the following query.

```
db.getCollection('azureResource').aggregate([{$group: { _id: { resourceId:"$resourceId" },
count: { $sum: 1 } }},{$match : {count: {$gte :2}}}]];
```

- 8 Copy the output to a text file.

The output contains resourceId and count information in two columns.

- 9 Remove each duplicated entry individually by entering the following command once for each entry.

```
db.azureResource.deleteMany({'resourceId': '<resourceIdFromQuery>'});
```

You must replace *<resourceIdFromQuery>* with *resourceId* for each entry from the output you have copied to the text file.

- 10 To exit MongoDB, press the following key combinations.

```
Ctrl+c
```

## Cost Calculation Fails with Failed to Query FactsRepo Error Message

The status of cost calculation might indicate a failure.

### Problem

After a cost calculation failure, when you look at the `itfm-server.log` file, you might see the Failed to query FactsRepo with query: `fetch 'storageGB' by [time,time]` error message.

### Cause

This problem occurs when the cost calculation status is obtained from the FactsRepo inventory service while the service is busy.

### Solution

- 1 Log in to the vRealize Business for Cloud virtual machine.
- 2 Run the `/usr/ITFM-Cloud/va-tools/bin/configclient.py GET -k query.source.batching` command.

The value of the `query.source.batching` configuration is `false`.

- 3 To change the value of the `query.source.batching` configuration to `true`, run the `/usr/ITFM-Cloud/va-tools/bin/configclient.py SET -k query.source.batching -v true` command.
- 4 To verify that the value of the `query.source.batching` configuration is `true`, run the `/usr/ITFM-Cloud/va-tools/bin/configclient.py GET -k query.source.batching` command.

- 5 To restart the vRealize Business for Cloud virtual machine, run the `monit restart itbm-server` command.

After the vRealize Business for Cloud virtual machine restarts, the cost calculation status is green.

## Mitigation for Clickjacking in vRealize Business for Cloud

When you run a security scan on vRealize Business for Cloud, you might see security vulnerabilities for two pages in vRealize Business for Cloud.

### Problem

If you run a security scan on vRealize Business for Cloud, you might see security vulnerabilities for two pages in vRealize Business for Cloud.

### Cause

When you run a security scan on vRealize Business for Cloud using the network scanning tool, you might see security vulnerabilities for two pages in vRealize Business for Cloud.

### Solution

- 1 Navigate to `/usr/local/tomcat/itbm-server/webapps/itfm-cloud/WEB-INF` folder in the application.
- 2 Locate the `web.xml` file and include the following code snippet.

```
<filter>
<filter-name>httpHeaderSecurity</filter-name>
<filter-class>org.apache.catalina.filters.HttpHeaderSecurityFilter</filter-class>
<async-supported>true</async-supported>
<init-param>
<param-name>antiClickJackingOption</param-name>
<param-value>SAMEORIGIN</param-value>
</init-param>
<init-param>
<param-name>xssProtectionEnabled</param-name>
<param-value>true</param-value>
</init-param>
</filter>
<filter-mapping>
<filter-name>httpHeaderSecurity</filter-name>
<url-pattern>/*</url-pattern>
</filter-mapping>
```

# Troubleshoot vRealize Automation Problems in vRealize Business for Cloud

## 2

You can solve problems related to the vRealize Automation such as connectivity, data collection, and blueprints costs.

This chapter includes the following topics:

- [vRealize Automation Data Collection Failure](#)
- [vRealize Business for Cloud and vRealize Automation Connection Failure](#)
- [vRealize Business for Cloud Is Disconnected](#)
- [Business Management Tab Does not Appear](#)
- [Error While Accessing vRealize Business for Cloud](#)
- [Blueprint Costs Displayed as Zero for vCloud Director Based Blueprints in vRealize Automation](#)
- [Blueprints Appear in the Other Cloud Providers Tab](#)
- [Insufficient Storage for Large Public Cloud Bills](#)
- [Business Management Tab Does Not Appear](#)
- [Authentication Exception in Business Management Tab](#)

## vRealize Automation Data Collection Failure

vRealize Business for Cloud and vRealize Automation connection fails, which results in data collection failure.

For information about configuring Network Time Protocol (NTP), see the *Configure Time Synchronization* section in the Installation Guide.

### Problem

After you register vRealize Business for Cloud with vRealize Automation, the vRealize Automation data collection displays `IaaS host unknown` error and then the IaaS machine is not reachable from vRealize Business for Cloud.

### Cause

This problem occurs if the time is not synchronized between vRealize Automation virtual appliance and the vRealize Business for Cloud virtual appliance. The time difference between the two virtual appliances must not be more than 60 seconds.

### Solution

- 1 Configure the same NTP servers on both vRealize Automation and vRealize Business for Cloud virtual appliances.
- 2 Restart the virtual appliances.

## vRealize Business for Cloud and vRealize Automation Connection Failure

An error message is displayed after registering vRealize Business for Cloud with vRealize Automation.

For information about recreating SSL key store, see the *Change or Replace the SSL Certificate of vRealize Business for Cloud* section in the Installation Guide.

For information about how to register vRealize Business for Cloud, see the *Register vRealize Business for Cloud with vRealize Automation* section in the Installation Guide.

### Problem

After you register vRealize Business for Cloud with vRealize Automation, if you navigate to **Administration > Business Management**, a `java.net.NoRouteToHostException: No route to host` error message is displayed.

### Cause

This problem occurs if the IP address of the vRealize Business for Cloud virtual appliance changes after vRealize Business for Cloud is registered with vRealize Automation.

## Solution

### 1 Unregister vRealize Business for Cloud.

- a Log in to the vRealize Business for Cloud web console at [https://vRealize\\_Business\\_for\\_Cloud\\_IP\\_address:5480](https://vRealize_Business_for_Cloud_IP_address:5480).
- b Based on your registered setup, perform the applicable steps.

Option	Procedure
<b>If you have registered with vRealize Automation</b>	<ol style="list-style-type: none"> <li>1 Download all the vRealize Automation reports. For more information, see <a href="https://kb.vmware.com/s/article/2151835">https://kb.vmware.com/s/article/2151835</a>.</li> <li>2 On the <b>Registration</b> tab, click <b>vRealize Automation</b>.</li> <li>3 Enter the details of the already registered vRealize Automation server.</li> <li>4 Click <b>Unregister</b>.</li> </ol> <p>If all the parameters are correct, you see the Unregistered with vRealize Automation server message.</p>
<b>If you have registered with VMware Identity Manager</b>	<ol style="list-style-type: none"> <li>1 On the <b>Registration</b> tab, click <b>vIDM</b>.</li> <li>2 Enter the details of the already registered VMware Identity Manager virtual appliance.</li> <li>3 Click <b>Unregister</b>.</li> </ol> <p>If all the parameters are correct, you see the Unregistered with vIDM message.</p>

### 2 Perform one of the following steps.

- Remove vRealize Business for Cloud virtual appliance from your environment and deploy a new instance of vRealize Business for Cloud with a static IP and fully-qualified domain name.
- Re-create the SSL key store file (ssl.keystore).

### 3 Register vRealize Business for Cloud with vRealize Automation.

## vRealize Business for Cloud Is Disconnected

You are unable to connect to vRealize Business for Cloud.

For information about how to register vRealize Business for Cloud, see the *Register vRealize Business for Cloud with vRealize Automation* section in the Installation Guide.

### Problem

After the vRealize Automation SSL certificate is updated, the connection to vRealize Business for Cloud is lost.

### Cause

An administrator has replaced the self-signed certificate of vRealize Automation, which is not registered with vRealize Business for Cloud.

### Solution

- ◆ Register your vRealize Business for Cloud server with vRealize Automation.

## Business Management Tab Does not Appear

After you register vRealize Business for Cloud with vRealize Automation, the **Business Management** tab does not appear in the vRealize Automation user interface.

### Problem

After you register vRealize Business for Cloud with vRealize Automation and assign the **Business Management** role or the **Tenant Controller** role to a user, the **Business Management** tab does not appear in the vRealize Automation user interface.

### Cause

This problem might occur in one of the following situations.

- When IaaS component of vRealize Automation is not available.
- When vRealize Automation data is cached on server.

### Solution

- ◆ When the vRealize Automation IaaS component is unavailable, perform the following steps.
  - a Log in to vRealize Automation virtual appliance by using the root credentials.
  - b Create an `extension.properties` file under `/etc/vcac` and hide the home page tab by using the `shell.disabledExtensions=csp.home` command  
  
You can hide other tabs by using `shell.disabledExtensions=extension-id[,extension-id]`
  - c Restart the vRealize Automation virtual appliance.
  - d Log in to the vRealize Automation interface.

The Business Management tab appears.

- ◆ When vRealize Automation data is cached on server, perform the following steps.
  - a Log in to vRealize Automation by using the `administrator@vsphere.local` credentials.
  - b Click **Edit** to open the edit window of the user tenant and click **Update**.
  - c Log out and log in again as a tenant by using the tenant URL.

## Error While Accessing vRealize Business for Cloud

After you register vRealize Business for Cloud with vRealize Automation, you might see an error when you attempt to access vRealize Business for Cloud.

For information about how to synchronize the time between vRealize Automation and vRealize Business for Cloud virtual appliances, see the *Configure Time Synchronization* section in the Install Guide.

### Problem

After you register vRealize Business for Cloud with vRealize Automation, if you click the **Business Management** tab in the vRealize Automation user interface, you might see Error 404 or HTTP Error 401 Unauthorized error.

### Cause

These errors might occur in one of the following situations

- vRealize Business for Cloud server is not up or reachable.
- The time between vRealize Automation and vRealize Business for Cloud virtual appliances is not synchronized. The time difference between the virtual appliances must not be more than 60 seconds.

### Solution

- ◆ When you see Error 404, perform the following steps:
  - a Log in to the vRealize Business for Cloud virtual machine.
  - b Run the `monit restart itbm-server` command.  
The server restarts in 20 to 30 seconds.
- ◆ When you see Error 401, perform the following steps:
  - a Configure the same NTP servers on both vRealize Automation and vRealize Business for Cloud virtual appliances.
  - b Restart the virtual appliances.

## Blueprint Costs Displayed as Zero for vCloud Director Based Blueprints in vRealize Automation

When you provision a virtual machine from vCloud Director based blueprint in vRealize Automation, the cost value is displayed as zero.

### Problem

When you provision a virtual machine from vCloud Director based blueprint in vRealize Automation, the cost value is not updated even when you update the cost in vRealize Automation and, the value is displayed as zero.

### Cause

This problem might occur in one of the following situations.

- The vCloud Director endpoint that exists in vRealize Automation is not added in vRealize Business for Cloud.
- The price value is not configured in vRealize Business for Cloud.

### Solution

- ◆ Add the vCloud Director endpoint in vRealize Business for Cloud.
- ◆ Configure the pricing values by navigating to **Pricing and Charges > Pricing > Edit > Edit Pricing > Other Cloud Providers**.

## Blueprints Appear in the Other Cloud Providers Tab

The blueprints associated to the endpoints appear on the **Other Cloud Providers** tab in vRealize Business for Cloud.

For information about how to add an endpoint, see *Manage Private Cloud Connections* and *Manage Public Cloud Connections* in the installation Guide.

### Problem

After you add an endpoint in vRealize Automation, when you click **Edit Pricing**, you see the blueprints associated to the endpoint appear on the **Other Cloud Providers** tab, but not under the respective section on the **Private Cloud (vSphere)** or **Public Cloud (AWS)** tabs.

### Cause

You have added the endpoint in vRealize Automation only, and not in vRealize Business for Cloud.

### Solution

- ◆ Add the endpoint in vRealize Business for Cloud.

## Insufficient Storage for Large Public Cloud Bills

vRealize Business for Cloud reports insufficient storage for large public cloud bills.

### Problem

If the size of the unzipped file of AWS or Azure bill is large, the virtual appliance runs out of storage and fails to store the bill.

### Cause

This problem occurs when the unzipped file of AWS or Azure Bill is large. The lack of hard disk space affects the data collection process and other processes which need storage access.



**Solution**

- 1 Shut down the vRealize Business for Cloud appliance.
- 2 Add a new hard disk to the vRealize Business for Cloud.
- 3 Power on the virtual appliance.
- 4 Connect to the virtual appliance using the Secure Sockets Layer.
- 5 In the shell client, to List all disks and identify the device ID of the new disk added, run **fdisk -lu**.

---

**Note** By default, the device ID for the new disk is `/dev/sdb`.

---

- 6 Access the disk utility for the new disk and run the **fdisk /dev/sdb** command.
  - a Press n then press Enter for new partition.
  - b Press p then press Enter for primary partition.
  - c Press 1 as the partition number.
  - d Accept the default start block and the default end block(use the default by pressing enter twice for start and for end).
  - e Press w to write the partition table to disk.
  - f Create a partition on the new disk.
- 7 To create an ext3 file system on the new disk, run **mkfs -t ext3 /dev/sdb1**.
- 8 If the bill size of AWS or Azure is large, run **mount /dev/sdb1 /usr/local/tomcat/itbm-data-collector/temp/** to mount the data-collector to a temp location in the new disk.
- 9 Run **mount -l**.  
 The command confirms whether the new partition is mounted properly or not. See whether the output contains `/dev/sdb1 on /usr/local/tomcat/itbm-data-collector/temp type ext3 (rw,relatime,data=ordered)` or not.
- 10 To open the file using vi, run **vi /etc/fstab**.
- 11 Add **/dev/sdb1 /usr/local/tomcat/itbm-data-collector/temp ext3 defaults 1 1**.  
 This step ensures that the disk is not unmounted if the virtual appliance is restarted.

**Solution**

Increase the size of vRealize Business for Cloud virtual appliance.

## Business Management Tab Does Not Appear

After you register vRealize Business for Cloud with vRealize Automation, the **Business Management** tab does not appear in the vRealize Automation user interface.

### Problem

After you register vRealize Business for Cloud with vRealize Automation and start the system, the **Business Management** tab in vRealize Business for Cloud does not appear in the vRealize Automation user interface. You also see the following error message:

```
javax.net.ssl.SSLHandshakeException: java.security.cert.CertificateException:Untrusted certificate chain exception in Administration -> Business Management TAB of vRA integrated setup.
```

### Cause

This problem might occur due to the following reason.

- The time between vRealize Automation and vRealize Business for Cloud virtual appliances is not synchronized.

### Solution

Unregister vRealize Business for Cloud from vRealize Automation, regenerate the self-signed certificate, and register vRealize Business for Cloud again with vRealize Automation. For information about how to change or replace the SSL certificate see the [Change or Replace the SSL Certificate of vRealize Business for Cloud](#) section in the Install Guide.

## Authentication Exception in Business Management Tab

Unable to authenticate with a OAuthToken exception in Business management tab of vRealize Business for Cloud integrated with vRealize Automation

### Problem

When you attempt to access the Business Management tab in vRealize Business for Cloud which is integrated with vRealize Automation, the following authentication exception message is displayed. `org.springframework.security.authentication.BadCredentialsException: Unable to authenticate with OAuthToken! The token is expired.`

### Cause

This issue occurs in vRealize Automation. When the user session expires in vRealize Automation, business management tab displays the authentication exception.

### Solution

- ◆ In vRealize Automation mode, after token expiry if the authentication exception pop-up appears in Business Management, then log out and log in again.

# Troubleshoot VMware Identity Manager Problems in vRealize Business for Cloud

## 3

You can solve the problems related to the VMware Identity Manager.

This chapter includes the following topics:

- [Registration of vRealize Business for Cloud with VMware Identity Manager Fails](#)
- [Redirecting to VMware Identity Manager Might Fail](#)
- [Unable to Log In to VMware Identity Manager](#)
- [Troubleshoot the Warning Message About vRealize Business for Cloud Access Permissions](#)

## Registration of vRealize Business for Cloud with VMware Identity Manager Fails

The vRealize Business for Cloud registration with VMware Identity Manager fails.

### Problem

When you attempt to register vRealize Business for Cloud with VMware Identity Manager, the registration process might fail.

### Cause

Registration attempts might fail because of several reasons.

- Incorrect host name or the IP address
- Certificate mismatch because of using IP address entry, instead of using the host name
- Incorrect credentials
- Insufficient user permissions

### Solution

- ◆ Verify the host name or the IP address.
- ◆ During registration process, enter the host name of the virtual appliance, instead of the IP address.

- ◆ Verify the user credentials.
- ◆ Verify that the user has the administrator role.

## Redirecting to VMware Identity Manager Might Fail

When you attempt to log in to vRealize Business for Cloud, the redirection to VMware Identity Manager might fail.

For information about how to register vRealize Business for Cloud, see the *Register vRealize Business for Cloud with VMware Identity Manager* section in the Installation Guide.

### Problem

If you have registered vRealize Business for Cloud with VMware Identity Manager, when you attempt to log in to vRealize Business for Cloud, you might see the following error: This site can't be reached.

### Cause

vRealize Business for Cloud login attempts might fail because of several reasons.

- The VMware Identity Manager server is not reachable.
- The VMware Identity Manager host name has changed.
- The `itfm-oauth.properties` file at `/usr/local/tcserver/vfabric../itbm-server/conf` has been modified.

### Solution

- ◆ Verify that the VMware Identity Manager server is up and running.
- ◆ Re-register vRealize Business for Cloud with the VMware Identity Manager.

## Unable to Log In to VMware Identity Manager

When you attempt to log in to VMware Identity Manager as administrator for managing user accounts, the log in might fail.

### Problem

You might be unable to log in to VMware Identity Manager as administrator for adding, modifying or deleting user accounts.

### Cause

- Incorrect credentials
- Problem with VMware Identity Manager

### Solution

- ◆ To resolve this problem, perform the applicable step out of the following solutions.
  - Verify the user credentials matches the credentials that you provided during VMware Identity Manager deployment.
  - Check for any problem in the VMware Identity Manager server.

## Troubleshoot the Warning Message About vRealize Business for Cloud Access Permissions

When a user logs in to vRealize Business for Cloud, the user might see a message to contact the system administrator for the required roles.

### Cause

The user is not assigned the required vRealize Business for Cloud role in VMware Identity Manager.

### Solution

- 1 Log in to the VMware Identity Manager virtual appliance at `https://VMware_Identity_Manager_hostname` as an administrator.
- 2 Click **Users & Groups**.

You can see the following vRealize Business for Cloud roles in the list.

  - **vRBC\_Administrator**, which provides the business administrator privileges.
  - **vRBC\_Controller**, which provides view access to specific business units.
  - **vRBC\_ViewOnly**, which provides read-only privileges.
- 3 Select the vRealize Business for Cloud role that you want to assign to the user.
- 4 Select **Users in This Group** and click **Modify Users in This Group**.
- 5 Search for and select the user name to which you want to add the role.
- 6 Click **Next**.

You see the name of the user in the **Users Being Added** section.
- 7 Click **Save**.

The user name is added to the **Users in this Group** table.

# Troubleshoot vCenter Server Account Problems in vRealize Business for Cloud

# 4

You can solve the problems related to the vCenter Server endpoints registered with vRealize Business for Cloud.

This chapter includes the following topics:

- [vCenter Server Data Collection Failure](#)
- [vCenter Server Storage Synchronization Failure](#)
- [Data Collection Fails After vCenter Server Upgrade](#)
- [Unable to Deny vCenter Clusters](#)
- [Cost Collection Failure](#)

## vCenter Server Data Collection Failure

vRealize Business for Cloud is unable to collect data from vCenter Server.

For more information, see the knowledge base article at <http://kb.vmware.com/kb/2146836>.

### Problem

When you click **Status** on the vRealize Business for Cloud user interface, you see one of the following problems:

- You see the red icon for the vCenter Server status.
- You see a vCenter Server synchronization failure message.
- You see the following error message under vCenter Server section:

Unable to retrieve data from vROps *vrops\_server\_address*

- When you click **Status** on the vRealize Business for Cloud user interface, you see the following error message under vCenter Server:

Unable to authenticate to vROps *vrops\_server\_address* using the vCenter's credentials

### Cause

This issue might occur in one of the following situations.

- The time zone of the vRealize Business for Cloud virtual appliance is not in the UTC format.
- The vCenter Server, Web services, and profile driven services are not running under the same LocalSystem or domain account.
- The vRealize Operations Manager server is not reachable.
- The vRealize Operations Manager API service is failing.
- The vRealize Operations Manager server is on an HA clustered, multi-node environment, and the node registered with vCenter Server is not reachable.
- Individual vCenter Server user login is disabled in vRealize Operations Manager.

### Solution

- ◆ To resolve this problem, perform the applicable step out of the following solutions.
  - Change the time zone to a UTC format in the vRealize Business for Cloud virtual machine. and run the `monit restart itbm-server` command.
  - Verify that all vCenter Server services such as, inventory, stats, and storage profiles run under the same user account.
  - If the vCenter Server has been added to vRealize Operations Manager in the last 24 hours, wait for vRealize Operations Manager to compute all data before attempting data collection again.
  - Check for any problems with the vRealize Operations Manager API service and resolve them.
  - If the vRealize Operations Manager instance is a multi-node setup and if a new node has been deployed to replace the failed node, update the plug-in on vRealize Operations Manager to register the new node with vCenter Server.
  - Enable the individual log in option in the vRealize Operations Manager instance.

Click **Administration > Global Setting > Edit > Allow vCenter users to log in to individual vCenters using the vRealize Operations Manager UI.**

## vCenter Server Storage Synchronization Failure

vRealize Business for Cloud does not collect data because of failure in the vCenter Server cost calculation process.

For more information about steps to perform in vCenter Server to resolve these problems, see [KB2060967](#), [KB2076692](#), [KB2015180](#).

### Problem

- You see the storage cost calculation failure message in the **Status** menu for vCenter Server.

- The vCenter Server storage service might fail and cause storage profiles to not appear in vRealize Business for Cloud.

#### Cause

This problem might occur in one of the following situations.

- The Web Services for Management (WS-Management) are not running on the vCenter Server.
- The vCenter Server user does not have all the following privileges.
  - **Storage views.View** and **Profile-driven storage.Profile-driven storage view** privileges.
  - If vCenter Server is integrated with vRealize Operations Manager, user must have the **Global.vCenter Operations User** privilege.
- The Profile-driven Storage service is not running in vCenter Server.
- The vCenter Server Web services and profile driven services are not running under the same LocalSystem or domain account.
- For vCenter Server virtual appliance, the OpenSSL heart-bleed patch is applied, but the vCenter Storage Monitoring Service certificates are not upgraded.
- Database issues in vCenter Server.

#### Solution

- ◆ Fix the service monitoring or user privileges or the database problems in vCenter Server.

## Data Collection Fails After vCenter Server Upgrade

After upgrading vCenter Server, data collection fails.

#### Problem

After you upgrade vCenter Server virtual appliance to the 6.0 version, the vCenter Server data collection fails.

#### Cause

The vCenter Server certificate has changed.

#### Solution

- 1 Log in to the vRealize Automation interface at [https://vRealize\\_Automation\\_host\\_name/vcac/org/tenant\\_URL](https://vRealize_Automation_host_name/vcac/org/tenant_URL) by using credentials of a tenant administrator.
- 2 Click the **Administration** tab.
- 3 Click **Business Management**.  
Ignore this step for the vRealize Business for Cloud standalone setup.
- 4 Click **Manage Private Cloud Connections**.



- 5 Select **vCenter Server** and click the edit option icon next to the server that you want to modify.
- 6 Accept the new vCenter Server certificate.

## Unable to Deny vCenter Clusters

Attempting to deny clusters once the endpoint is added shows the data for the denylist clusters in the UI for the current month.

### Problem

The denylist entities will still appear in UI for the current month because the current month inventory was already populated once the endpoint was added.

### Solution

- 1 First remove the endpoint.
- 2 Trigger data-collection & then sync.
- 3 Deny or block the clusters.
- 4 Restart the data collector.
- 5 Add the end point.

### Solution

Clusters which are ignored or denied are not seen now even for the current month.

## Cost Collection Failure

Cost calculation fails due to a resource relationship problem.

### Problem

If you delete a parent folder in vCenter Server and perform a full data collection, then the cost collection fails due to a resource relationship problem.

### Solution

- 1 Perform a full vCenter data collection.
- 2 Change or add the following property in `itfm.properties` file either directly, or through the configuration client:

```
factsrepo.snapshot.batch.duration.hours=<Number of hours between last successful cost calculation and current date>
```

- 3 Restart the ITBM-server and then trigger the cost calculation.  
Wait for the cost calculation to complete.

- 4 Remove the property added in Step 2, or change the value to 24 (default value).
- 5 Restart the ITBM-server.

# Troubleshoot vCloud Director Account Problems in vRealize Business for Cloud

## 5

You can solve the problems related to the vCloud Director endpoints registered with vRealize Business for Cloud.

This chapter includes the following topics:

- [Unable to See the vCloud Director Categorization](#)
- [Virtual Machines that Exist in vCloud Director Are Not Displayed in vRealize Business for Cloud](#)

## Unable to See the vCloud Director Categorization

After vRealize Business for Cloud upgrade, vCloud Director categorization information does not appear in the upgraded setup.

### Problem

After vRealize Business for Cloud upgrade, the organization constructs and the organization virtual data center constructs of the registered vCloud Director do not appear in vRealize Business for Cloud.

### Cause

The vCloud Director server is down after vRealize Business for Cloud upgrade. As a result, the cost calculation process does not run.

### Solution

- 1 Synchronize the vCloud Director process.
  - Click **Status** on vRealize Business for Cloud user interface, and click **Update Now** next to vCloud Director.
  - Wait for the next automatic cost calculation process to complete. By default, the process runs once every hour.

- 2 Trigger the cost calculation.
  - Click **Status**, and click the **Update Now** option to run the cost calculation process manually.
  - Wait for the next automatic cost calculation process to complete. By default, the process runs once in a day.

The information is displayed after a successful cost calculation process.

- 3 In the Consumption section on the UI, verify that you can see the organization-based information.

## Virtual Machines that Exist in vCloud Director Are Not Displayed in vRealize Business for Cloud

After you add vCloud Director to vRealize Business for Cloud, the details of the virtual machine that vCloud Director manages are not displayed.

### Problem

Even after you add vCloud Director to vRealize Business for Cloud, the details of the virtual machine that vCloud Director manages are not displayed in vRealize Business for Cloud.

### Cause

You have not explicitly added the vCenter Server instances that are managed by vCloud Director to vRealize Business for Cloud.

### Solution

- 1 Log in to vRealize Business for Cloud or data collection manager:
  - If you are using a vRealize Automation-integrated vRealize Business for Cloud setup, log in at `https://vRealize_Automation_host_name/vcac/org/tenant_URL` by using credentials of a tenant administrator, click **Administration** and **Business Management**.
  - If you are using a vRealize Business for Cloud standalone setup, log in at `https://vRealize_Business_for_Cloud_host_name/itfm-cloud` as an administrator and click **Business Management**.
  - If you are using a remote data collector, log in to `https://Remote_Data_Collector_IP_address:9443/dc-ui/login.html` by using the root user credentials.
- 2 Click the **Administration** tab.
- 3 Click **Business Management**.  
Ignore this step for the vRealize Business for Cloud standalone setup.
- 4 Click **Manage Private Cloud Connections**.
- 5 Enter the required details to add the instance.

- 6 Click **Save** and click **OK** in the Success dialog box.

If the instance is not using SSL certificate from certificate authority, a dialog box with untrusted SSL certificate is displayed. vRealize Business for Cloud does not verify the revocation status of the SSL certificate. You must verify the status manually before accepting the certificate.

- 7 Click **Install**.

If the credentials are valid, the instance is added to the vRealize Business for Cloud.

---

**Note** If the SSL certificate changes after addition of instance into vRealize Business for Cloud, data collection might fail. This is because, the instance presents a new untrusted certificate. You can edit the instance and then accept the new certificate.

---

You can perform the same procedure to add multiple instances.

# Troubleshoot Storage Server Problems in vRealize Business for Cloud

# 6

You can solve the problems related to the storage servers registered with vRealize Business for Cloud.

This chapter includes the following topics:

- [Unable to Add EMC SRM Storage Servers](#)
- [Storage Array Details Do Not Appear](#)
- [The Computed LUN Rate Does Not Match the Actual Rate](#)

## Unable to Add EMC SRM Storage Servers

You are unable to add an EMC SRM storage server to vRealize Business for Cloud.

### Problem

On the **Administration** tab in vRealize Business for Cloud, attempts to add an EMC SRM storage server fail.

### Cause

vRealize Business for Cloud is unable to communicate with EMC SRM server.

### Solution

- 1 Ensure that the URL of SRM server you provided on the Add window is in the valid format as follows:  
[protocol://]server[:port], where protocol and port are optional.
  - Protocol can be HTTP or HTTPS. The default protocol to run SRM is HTTPS.
  - Port is the port number on which you want to run the SRM server. The default port number is 58443.
- 2 Verify that the SRM user has permissions to access SRM reports and ReportManagerService by using a SOAP client or in SRM application.

## Storage Array Details Do Not Appear

After you add SRM servers to vRealize Business for Cloud, storage array details do not appear.

### Problem

- When you click the **Status** option, you see a synchronization failure message in the EMC SRM servers section.
- After adding EMC SRM servers, vRealize Business for Cloud does not display the storage array and its related details. No error is reported in the `/var/log/vrb/data-collector/itfm-srm-dc.log` log file.

### Cause

- vRealize Business for Cloud has not collected the complete data for SRM storage or the data collection is still in progress.
- ReportManagerService might not be returning SRM storage data to vRealize Business for Cloud.

### Solution

- ◆ To resolve the problem, perform the applicable step out of the following solutions.
  - Verify that the storage arrays are added to SRM in the SRM user interface.
  - Ensure that the storage data collection process is complete by verifying the updated timestamp for the storage server data collection in the system status window.

By default, SRM storage data collection happens on daily basis.
  - After adding the SRM server to vRealize Business for Cloud, wait for a few hours to complete data collection. For more information about any error details, see the `/var/log/vrb/data-collector/itfm-srm-dc.log` file.

- ◆ Verify whether SRM ReportManagerService is returning data by performing following steps.
  - a Download and install SOAP user interface from <http://www.soapui.org>.
  - b Configure ReportManagerService endpoint with a user ID and password at <http://SRM-server/APG>.
  - c Invoke requests to verify the payload.
 

```
<?xml version="1.0" encoding="UTF-8"?> <node xmlns="http://www.watch4net.com/APG/Web/XmlTree1" name="List of arrays" order="2" singleNodeId="3820e72f" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<property xsi:type="PropertyNodeColumn" name="System Name" property="device"/>
<property xsi:type="PropertyNodeColumn" name="Serial #" sortMode="asc#1" property="serialnb"/> <property xsi:type="PropertyNodeColumn" name="IPs" property="ip"/> <property xsi:type="PropertyNodeColumn" name="Model" property="model"/> <property xsi:type="PropertyNodeColumn" name="Array Type" property="arraytyp"/> <property xsi:type="ValueNodeColumn" name="Array Usable Capacity" filterExpression="(name=='ConfiguredUsableCapacity' | name=='NASFSCapacity')& ! (parttype)" period="3600" forcePeriod="never" timeThreshold="2"/> <property xsi:type="NodePropertyNodeColumn" name="System Type" sortMode="asc" nodeProperty="expandedNames[1]"/> <formula formulaId="util.ChildCount">
<result name="Count" default="false" graphable="false"/> </formula> <node name="array" singleNodeId="f9dc2ffc"> <property xsi:type="NodeExpansion" expandOn="device,datatype"/> <property xsi:type="NodeFilter" filterExpression="name=='Availability' & vstatus='active'"/> <property xsi:type="ReportPreferences" defaultMode="mix" displayedProperties="model[Model] serialnb[Serial number] partvrs[Operating Environment]"/> <property xsi:type="NodePropertyNodeColumn" name="Component" nodeProperty="name"/> <property xsi:type="NodePropertyNodeColumn" name="Description" nodeProperty="reportPreferences.description"/> <property xsi:type="ValueNodeColumn" name="Count" resultName="Count" forcePeriod="true" timeThreshold="600" roundingAccuracy="0"/> </node> </node>
```

## The Computed LUN Rate Does Not Match the Actual Rate

The computed LUN rates are the same for all LUNs and do not match the actual rate in vRealize Business for Cloud.

For information about how to define service level weightage value, see the Edit Service Level Weightage section in *vRealize Business for Cloud User's Guide*.

### Problem

The computed LUN rates are the same for all LUNs and do not match the actual rate in vRealize Business for Cloud.

### Cause

The service level policies are not applied on LUNs.



### Solution

- ◆ Verify that the service level policies are defined in SRM.
- ◆ Verify that the service level weightage is defined.

# Troubleshoot AWS Account Problems in vRealize Business for Cloud

## 7

You can solve problems related to the AWS accounts registered in vRealize Business for Cloud.

This chapter includes the following topics:

- [Unable to Add AWS Accounts](#)

## Unable to Add AWS Accounts

You are unable to add an AWS account that you want to track and analyze by using vRealize Business for Cloud.

### Problem

On the **Administration** tab, when you attempt to add an AWS account, an AWS data collection error appears in the system status. Review the `itfm-server.log` file for more details about the error.

### Cause

This problem might occur because of one of the following reasons.

- When adding an account, the paying accounts are not marked as primary accounts.
- The AWS CSV file is huge and exceeds the available storage on vRealize Business for Cloud virtual appliance.
- For paying accounts, you have not enabled the detailed billing report.
- The account ID contains special characters or alphabets or the length of account ID is greater than 12 characters.
- The billing report is unavailable in the S3 bucket.
- You do not have permissions to add the account.

### Solution

- ◆ To resolve this problem, perform the applicable step out of the following solutions.
  - Verify that the paying account is selected as a primary account while adding an account.

- Enable the detailed bill option for the paying accounts.
- Verify that the account ID does not contain any special characters.
- Ensure that at least one billing report present in the S3 bucket follows the following naming convention `123456789012-aws-billing-detailed-line-items-with-resources-and-tags-yyyy-mm.csv.zip`, where 123456789012 is the account ID, yyyy is the year, and mm is the month.
- For a paying account, ensure that the AWS user has required permissions such as **s3:Get\***, **s3:List\***, and **ec2:Describe\***.

For a non-paying account, verify that the AWS user has the **ec2:Describe\*** permission.

# Troubleshoot Azure Account Problems in vRealize Business for Cloud



You can solve problems related to the Azure accounts registered in vRealize Business for Cloud.

This chapter includes the following topics:

- [Some of the Provisioned Virtual Machines Do Not Appear for an Azure Account](#)
- [Data Collection Failure for Azure Non-EA Accounts](#)

## Some of the Provisioned Virtual Machines Do Not Appear for an Azure Account

For an Azure Account, you do not see all the virtual machines that you have provisioned.

### Problem

You do not see all the virtual machines provisioned for an Azure account.

### Cause

When you have multiple virtual machines in one or more of your cloud services, the number of virtual machines that you see in vRealize Business for Cloud is the number of cloud services that you have in your Azure account.

## Data Collection Failure for Azure Non-EA Accounts

vRealize Business for Cloud is unable to collect data for Azure non-EA accounts .

### Problem

The data collection process does not complete successfully in vRealize Business for Cloud for Azure non-EA accounts.

### Solution

- 1 Log in to Azure portal at <https://account.windowsazure.com/Subscriptions>.
- 2 Make a note of the offer IDs for your subscriptions.

If the offer ID is MS-AZR-0003P, note 0003P and ignore MS-AZR-

- 3 Log in to vRealize Business for Cloud as the system administrator.
- 4 Open the `azure.properties` file from `/usr/local/tomcat/itbm-data-collector/conf/azure/azure.properties`.
- 5 Add an entry for your subscription.  
The entry must be in the ***subscription-display-name=code*** format.  
To add an entry for Pay-As-You-Go offer type, enter **Pay-As-You-Go=0003P**.
- 6 Restart the vRealize Business for Cloud services to apply the changes by running the `monit restart itbm-server` command.

# Troubleshoot Report Problems in vRealize Business for Cloud

# 9

You can solve problems related to the reports in vRealize Business for Cloud.

This chapter includes the following topics:

- [Error While Filtering Reports](#)
- [Data from Previous Month Is Not Included in Cost Calculation](#)

## Error While Filtering Reports

An error appears when you filter reports in vRealize Business for Cloud.

### Problem

When you attempt to filter reports by using a long string as a filter criterion, an error appears.

### Solution

- ◆ Change the maximum size of the request and response HTTP header to a value greater than or equal to **64000** bytes in the server.xml file at `/usr/local/tcserver/vfabric-tc-server-standard/itbm-server/conf/`.

```
maxHttpHeaderSize="65536"
```

## Data from Previous Month Is Not Included in Cost Calculation

The data from the previous month is not included in cost calculation after a patch for cost calculation failure is applied.

### Problem

When a patch is applied for a cost calculation failure after the month has ended, cost calculation for the previous month includes the current month's data for computing the prices for the previous month.

### **Cause**

The problem occurs only when a patch for a cost calculation failure is applied after the month has ended. The query erroneously includes the current month data when cost calculation is run for the previous month.

### **Solution**

- 1** Change the system date of the vRealize Business for Cloud virtual appliance to the last date of the previous month.
- 2** Run cost calculation.
- 3** After cost calculation reaches the date specified as the system date, change the system date back to the current date.