

vRealize Automation Management Pack 2.0 Release Notes

vRealize Automation™ Management Pack™ | Build 3477886
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The vRealize Automation Management Pack extends operational management capabilities of the vRealize Operations Manager platform to provide operational control in the areas of cloud IT services.

What's New

The vRealize Automation Management Pack 2.0 provides several new features.

- Upgrade support from vRealize Automation Management Pack 1.0
- Upgrade support for vRealize Automation endpoint
- vRealize Automation 7.0 support
- Support for High Availability (HA) large scale setup
- Support for latest CAFÉ and WAPI APIs
- Adapter instance configuration per tenant(s)
- Localization support

Performance and Scalability

The number of Virtual Machines that the Management Pack supports depends on the API type configured in the vRealize Automation Management Pack. This is because, the API type affects the performance and scalability of the overall solution. Two types of APIs are supported by the vRealize Automation Management Pack, namely, WAPI and CAFÉ. vRealize Automation 7.0 and above support only CAFÉ APIs whereas WAPI APIs are supported in all versions. You can configure the type of API that the management pack uses.

The Management Pack has been tested and verified to support 8000 Virtual Machines when configured to use CAFÉ APIs with vRealize Automation 7.0. Additionally, the Management Pack has been tested and verified to support 1000 Virtual Machines when configured to use WAPI APIs with vRealize Automation 6.2.3. All vRealize Automation 6.2.x versions (only support WAPI) will thus support 1000 Virtual Machines

Compatibility and Interoperability

The vRealize Automation Management Pack is compatible with:

- vRealize Operations Manager 6.2 or higher
- vRealize Operations Manager 6.1
- vRealize Automation 7.0 or higher
- vRealize Automation 6.2.x

Port Information

Communication between the vRealize Automation Management Pack and vRealize Operations Manager

In environments where strict firewalls are in place, specific ports must be open for the vRealize Automation Management Pack to retrieve data from vRealize Automation.

- vRealize Automation URL on port 443
- vRealize Automation IAAS URL on port 443
- vRealize Automation SSO URL on port 7444

Note: This version of the vRealize Automation Management Pack supports only vCenter objects used and managed by vRealize Automation. No other object kinds such as AWS or Openstack resources are supported at this time.

Known Issues

- vRealize Automation Management Pack fails to collect all objects data from large vRealize Automation setup

By default, the collection time interval for vRealize Automation Management Pack is 5 minutes when collecting data from regular vRealize Automation setups. However, in large vRealize Automation setups, if the collection time interval remains unchanged at 5 minutes, accurate object count is not reflected.

Workaround: Increase the collection time interval to 60 minutes.

1. Log in to vRealize Operations Manager.
2. Navigate to **Administration > Inventory Explorer > Adapter Instances > MP for vRealize Automation Instance**.
3. Select the management pack instance, click **Edit**, and from the **Advanced Settings**, set the value for **Collection Interval (Minutes)** to 60.

- Configuration fails when the adapter cannot reach vRealize Automation at configuration time

If connection errors occur during an adapter instance configuration (for example, if there is a network outage), the adapter will be placed in a failed state and will not attempt any collections. This can be seen in the **Collection State** of the adapter instance and it will be in the **Failed** state.

Workaround: Once connections are available again, select the adapter instance in either the Solutions page or Inventory Explorer page and then select the **Start Collecting** button.

- Manual discovery times out while trying to communicate with the vRealize Automation server

Due to some environment or scalability issues, sometimes manual discovery may time out for large vRealize Automation deployments.

Workaround: None.

- Cannot find Summary Metrics for blueprints or some capacity-related metrics for tenants, business groups, or reservations

Some capacity related metrics are generated by vRealize Operations and may not populate until 24 hours have passed.

Workaround: None.

- Missing metrics while using CAFE API

While retrieving data through vRealize Automation Management 2.0 instance from a vRealize Automation 7.0 endpoint, the following metrics will not appear for reservation, business groups, and tenants in vROps when `useWAPIFor70Reservations` is FALSE (by default):

- Quota|Reserved

- Quota|Free

Also, while retrieving data through vRealize Automation Management 2.0 instance from a vRealize Automation 7.0 endpoint, the following metrics will not appear for business groups and tenants in vROps when `useWAPIFor70BusinessGroups` is FALSE (by default):

- Quota|Allocation

- Memory|Allocation

- Memory|Free

- Storage|Allocation

- Storage|Free

Workaround: Navigate to `/usr/lib/vmware-vcops/user/plugins/inbound/vCACAdapter3/conf/vcac.properties` and change the value of `useWAPIFor70BusinessGroups=false` and `useWAPIFor70Reservations=false` to TRUE. However, if you select WAPI, the performance of vRealize Automation Management Pack is impacted. For more information, see **Performance and Scalability** section.

- Virtual Machines are not correctly filtered by tenant on Environment Overview widget of vRealize Automation Overview dashboard

When you select a specific tenant, none of the virtual machines get highlighted. However, when the corresponding blueprint is selected, appropriate virtual machines get highlighted. This happens when business groups share hardware through reservations. The relationship between the tenants and business groups to virtual machines exist through that shared hardware. Hence, specific virtual machines are not highlighted.

Workaround: None.

- Error while using the super user account in the vRealize Automation Management Pack

When you use the super user account set up with all the required rights in the vRealize Automation Management Pack, test and collection fail with the following error:

```
Failed operation for class com.vmware.adapter3.vcac.impl.BlueprintFetcher: null
```

Workaround:

1. Use the remote desktop connection to log into the IAAS machine.
2. Navigate to `C:\Program Files (x86)\vmware\vcac\wep api`.
3. Edit the `Web.config` file.
4. Add this line `<add key="DisableNonceCheck" value="true" />` to the `<appSettings>` section.
5. Save the file and issue an `iisreset` command from the command prompt.

- **Adapter test fails.** There are three known issues that occur if the adapter test fails. Each issue is categorized by the readout in the collector log files, and each one has a different workaround.

When the collector log files display:

```
com.vmware.adapter3.vcac.impl.SystemInfrastructureService.collectInformation2 - Failed to
login
to tenant vsphere.local
java.lang.RuntimeException: java.net.SocketException: Connection reset
```

Cause of issue: vRealize Automation has an IAAS component which is installed on a Windows server. Some servers will break off communication if the client (in this case, the adapter in vRealize Operations Manager) tries to communicate via protocol TLS v1.2. By default, the adapter tries to communicate via TLS v1.2.

Workaround: Before beginning this workaround, disable TLS v1.2 in vRealize Operations. This should be done on all nodes where the vRealize Automation adapter will be run. Also note, this disables TLS v1.2 for all adapters on the collectors where this is performed

1. SSH into the vrops node.
2. Edit the file /usr/lib/vmware-vcops/user/conf/collector/wrapper.conf.
3. Locate the last line that begins with wrapper.java.additional.## and note the number.
4. Add a line under that which reads "wrapper.java.additional.##=-Djdk.tls.client.protocols=TLSv1.1,TLSv1,SSLv3", where ## is the number need in step 3 plus one. For instance, if the number was 21, the number here would be 22.
5. Save the file and reboot the collector: service vmware-vcops restart collector.
6. Wait a minute after the restart has succeeded, and try the adapter test again.

When the collector files display:

```
com.vmware.adapter3.vcac.impl.SystemInfrastructureService.collectInformation2 - Failed to
login
to tenant vsphere.local
java.lang.RuntimeException: javax.net.ssl.SSLHandshakeException:
java.security.cert.CertificateException: Certificates does not conform to algorithm
constraints
```

Cause of issue: The vRealize Automation servers are using certificates which use certain signature algorithms. This has been observed in systems using the RSASSA-PSS algorithm, but may be observed when using other algorithms. These algorithms are not recognized by the version of Java used by vRealize Operations.

Workaround: There are two possibilities:

- Configure the vRealize Automation servers to use certificates which use standard RSA signature algorithms.
- Disable TLS v1.2 in vRealize Operations. These algorithms are not checked in previous versions of TLS so the error will not happen. Note: This should be done on all nodes where the vRA adapter will be run. Also note, this disables TLS v1.2 for all adapters on the collectors where this is performed. To perform this workaround, refer to the procedure above.

When the collector files display:

```
com.integrien.alive.common.adapter3.AdapterBase.collect -
Collect threw an exception: I/O error on GET request for "https://url":
java.security.cert.CertificateException:
Untrusted certificate chain.; nested exception is javax.net.ssl.SSLHandshakeException:
java.security.cert.CertificateException: Untrusted
certificate chain.
```

Cause of issue: This can be caused by updating a certificate on the vRealize Automation servers (for instance, replacing an expired certificate) while an adapter instance is actively collecting from that vRealize Automation system.

Workaround: Reboot the collector in vRealize Operations by SSHing into the collector's node and run the command: service vmwarevcops restart collector.

- All the datastores that are brought in by the VMware vCenter adapter and are registered in vRealize Automation are displayed in the Environment Overview page. Select **Administration > Environment Overview > vRealize Automation Entity Status > Managed Resources** from the vRealize Operations Manager UI. Because the Managed Resources object is used to filter the VMware vCenter adapter objects in many of the vRealize Automation dashboard widgets, the dashboards that display the datastores also display more datastores than what is in use by vRealize Automation. This is true only for vRealize Automation versions prior to 7.0.

Workaround: Perform this workaround in vRealize Operations Manager environments where datastores are not added or deleted very often:

- Create a custom group in vRealize Operations Manager and manually add all datastores that are in use by vRealize Automation.
- Update the dashboard widgets that display datastores to use the new custom object instead of the Managed Resources object.

- When you select an instance of the Management Pack for vRealize Automation that has just been installed, the following message is displayed: Configuration not needed.

Workaround: Continue to configure the Management Pack for vRealize Automation.

- The Environment Overview widget in the vRealize Automation Tenant Overview dashboard does not display the correct relationship between objects from the VMware vCenter adapter, such as - virtual machines, datastores, hosts, and clusters, and other objects from vRealize

Automation. This error occurs when any object in vRealize Operations Manager does not have a name specified.

Workaround: From the **Administration > Environment Overview** page, you can find objects that do not have a name specified and delete them.

- When the blueprint object does not have instantiated virtual machines, the vRealize Automation Management Pack does not build relationships between the reservation object and the blueprint object.

Workaround: None.

- Some virtual machines that do not belong to specific vRealize Automation objects, might appear as children of the Reservation objects, their corresponding Business Groups, and the parent Tenant(s) of those Business Groups. Additionally, the following issues might be observed while using few dashboards:
 - One VM getting associated to more than one Reservations, Reservations policies, Business Groups, Fabric Groups, or Tenants.
 - One Reservation getting associated to more than one data store.
 - One Business Group getting associated to more than one data store, that may not be associated to it.

These happen when:

- Hardwares are shared across multiple Fabric Groups or Reservations in vRealize Automation environment.
- Reservation(s) are shared across multiple Business Groups.

Workaround: None.

- Virtual machines that are renamed are not displayed under the Managed Resources object in the Environment Overview page or in the Environment Overview widget in the Tenant Overview dashboard or in the Cloud Infrastructure Health and Capacity Overview widget in the Cloud Infrastructure Monitoring dashboard.

Workaround: None.