



vRealize Automation 7.6 Release Notes

UPDATED 13 February 2020

vRealize Automation | 11 April 2019 | Build #: 13027280

Check regularly for additions and updates to these release notes.

What's in the Release Notes

The release notes cover the following topics:

- [What's New](#)
- [Internationalization](#)
- [System Requirements](#)
- [Documentation](#)
- [Using vRealize Code Stream](#)
- [Resolved Issues](#)
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What's New

The vRealize Automation 7.6 release includes resolved issues and these new capabilities.

New Features and Enhancements

With vRA/vRO 7.6 VMware is making the Hybrid Cloud easy.

- Install and configure
 - New VAMI UI summary page
 - New VAMI Additional cluster health alerts that are configurable
 - SNMP service - facilitates the monitoring of the vRA node resources such as CPU, Memory and many other. Configurable to actively monitor resources and send snmp trap when certain threshold is exceeded, API available
- Upgrade enhancements:
 - Bug fixes and small enhancements
 - Upgrade will back up all configuration files
 - API improvements – fine grained progress reporting at API level
 - Upgrade flow is now more configurable - some of the steps could be configured for later execution

- Custom Forms Enhancements - Providing a higher level of flexibility for customers wishing to customize and enhance their request forms in vRA
 - Datagrid Enhancements – Blueprint-defined disks are read-only, cell validation, and field refresh when rows are added, removed, or edited
 - Datagrid Enhancements – Added cell validation and field refresh when rows are added, removed, or edited
 - Machine disks – Any disk entries/values that are set in the converged blueprint will never be shown in the Custom Form UI. However they will always be added to the request data when you click Submit.
 - Added dual list selector component
 - Added multiple selector component for complex objects
 - Added link component
- NSX Integration - Support NSX-V to NSX-T migrations
 - [On-demand private networks for NSX-V](#)
 - [Support for NSX-T and NSX-V configured for different clusters on a single vCenter](#)
- vRO UI Enhancements - Improved user experience for customers creating workflows with vRO
 - Enhancements across Design, Content Management and Troubleshooting in the Web client (refer to vRO What's new and release notes for more detailed information)

NEW Ports and Protocols Tool

The new ports and protocols tool enables you to view port information for a variety and combination of VMware products on a single dashboard. You can also export selected data from the tool for offline accessibility. The Ports and Protocols tool currently supports:

- vSphere
- vSAN
- NSX for vSphere
- vRealize Network Insight
- vRealize Operations Manager
- vRealize Automation

The tool is available on <https://ports.vmware.com/>.

Internationalization

vRealize Automation 7.6 is available in the following languages:

- English
- French
- German
- Spanish
- Japanese
- Korean
- Simplified Chinese
- Traditional Chinese
- Italian
- Russian
- Dutch
- Brazilian Portuguese

For more information about product language support, see the [VMware Product Globalization Guide](#)

System Requirements

For information about supported host operating systems, databases, and Web servers, see the [vRealize Automation Support Matrix](#).

Documentation

For vRealize Automation 7.6 documentation, see [VMware vRealize Automation](#) at VMware Docs.

Installation

For prerequisites and installation instructions, see [Installing vRealize Automation](#) at VMware Docs.

Updates to

NOTE: See Knowledge Base article [58708](#) that addresses a join cluster validation error.

Upgrade to Disabling Ciphers for the RabbitMQ documentation procedure:

The procedure on page 31 of the hardening guide, Configure vRealize Automation Application Resources must be performed with these updated steps:

1. Run the following command to verify that files with SUID and GUID bits set are well-defined.

```
find / -path /proc -prune -o -type f -perm +6000 -ls
```

Note: Most of the ciphers listed as supported for RabbitMQ are not actually supported on this VA platform. Meaning that even though RabbitMQ SSL libraries supports ciphers like: "ECDHE-RSA-AES256-GCM-SHA384", "ECDHE-RSA-AES128-GCM-SHA256" in general, on the vRA7.6 appliance they are not supported on OS level. The OS distribution of the vRA VA is SLES 11 SP4, and comes with a maximum version of openssl lib 1.0.1 is not

enough. The RabbitMQ SSL libraries need at least openssl lib 1.1 to have the particular ciphers.

2. The strongest ciphers supported meeting the VA OS constraints are "AES256-GCM-SHA384", "AES128-GCM-SHA256" and if we are going to harden our rabbit configuration on the VA here is a reference hardening config and this config passes the security check with the <https://testssl.sh/> tool recommended by rabbit:

```
/etc/rabbitmq/rabbitmq.config
```

```
[
  {ssl, [
    {versions, ['tlsv1.2']},
    {ciphers, ["AES256-GCM-SHA384", "AES128-GCM-SHA256"]}
  ]},
  {rabbit, [
    {tcp_listeners, [{"127.0.0.1", 5672}]},
    {frame_max, 262144},
    {ssl_listeners, [5671]},
    {ssl_options, [
      {cacertfile, "/etc/rabbitmq/certs/ca/cacert.pem"},
      {certfile, "/etc/rabbitmq/certs/server/cert.pem"},
      {keyfile, "/etc/rabbitmq/certs/server/key.pem"},
      {versions, ['tlsv1.2']},
      {ciphers, ["AES256-GCM-SHA384", "AES128-GCM-SHA256"]},
      {verify, verify_peer},
      {client_renegotiation, false},
      {secure_renegotiate, true},
      {reuse_sessions, true},
      {honor_cipher_order, true},
      {fail_if_no_peer_cert, false}
    ]},
    {mnesia_table_loading_timeout, 600000},
    {cluster_partition_handling, autoheal},
    {heartbeat, 600}
  ]},
  {kernel, [{net_ticktime, 120}]}
].
```

3. Review permissions for all files to the virtual appliance to verify that none of them are world writable by running the following command.

```
find / -name "*" -type f -perm -a+w | xargs ls -ldb
```

4. Run the following command to verify that only the vcac user owns the correct files.

```
find / -name "proc" -prune -o -user vcac -print | egrep -v -e "**/vcac/**" | egrep -v -e "**/vmware-vcac/**"
```

If no results appear, then all correct files are owned only by the vcac user. If you need particular ciphers and want to check them on the VA, use the procedure 1-3 by setting his particular ciphers in the config suggested in 2. Next, check the configuration is valid by running in a VA SSH session:

```
openssl s_client -connect localhost:5671 -tls1_2 -debug
```

or for a full check, run the testssl tool.

For general guidance, see [Upgrading vRealize Automation](#) at VMware Docs.

Before you upgrade from vRealize Automation 6.2.x

The vRealize Production Test Upgrade Assist Tool analyzes your vRealize Automation 6.2.x environment for any feature configuration that can cause upgrade issues and checks to see that your environment is ready for upgrade. To download this tool and related documentation, go to the VMware vRealize Production Test Tool [Download Product](#) page.

Using vRealize Code Stream

To use vRealize Code Stream in your vRealize Automation environment, you must have a vRealize Code Stream license.

For more information, see [vRealize Code Stream Installation](#) and [Apply a vRealize Code Stream License to an Appliance](#) in the vRealize Code Stream Information Center.

Resolved Issues

The following defects were fixed as a part of this release.

- **During IaaS automatic upgrade upgrade-dem or upgrade-agent command fails. Command result is similar to: Result: Service name contains invalid characters, is empty, or is too long (max length = 80). Alternatively same error could be found in the Management Agent All.log file. The name of the mentioned service is longer than 80 characters**

Microsoft .Net APIs used to handle Windows Service operations in IaaS have a restriction of 80 characters for Windows Service name, although the OS actually permits longer (256) lengths. The problem occurs in the end of the DEM/DEO/Agent upgrade when the service is attempted to be restarted.

The Service name should be changed to a shorter one but the Windows command line tools / APIs do not allow such a change (only the Display name could be modified), so the workaround is to reinstall the service. This could be done by uninstalling the service, then downloading the IaaS installer (from the VAMI install page at https://<vami_host>:5480/installer) and running it on the respective IaaS host to install the service with an appropriate name. Bear in mind that each IaaS service is automatically given a prefix upon installation preceding the entered name.

Depending on the service the prefixes are: VMware DEM-Worker, VMware DEM-Orchestrator, VMware vCloud Automation Center Agent. Note: In case of reinstalling an IaaS Agent to change its name - the name of the corresponding endpoint should also be changed in vRA.

- **Following an upgrade from vRealize Automation 7.3 or earlier, applications that use the Get Details Form API call stop working**

In vRealize Automation 7.3 or earlier, the following list of XaaS request properties retrieved

using the catalog service API GET /api/consumer/requests/{id}/forms/details were misspelled:

- o "vco.execurion.state"
- o "vco.execurion.business.state"
- o "vco.execurion.current.activity.name"
- o "vco.execurion.start.date"
- o "vco.execurion.end.date"
- o "vco.execurion.error.details"

As of vRealize Automation 7.3.1, "execurion" was corrected to "execution". Applications that continued to use the XaaS request properties with the original spelling stopped working.

Workaround: If your content is dependent on any of the misspelled XaaS request properties and you are running vRealize Automation 7.3.1 or later, update your application to use the current XaaS request properties spelled as follows:

- o "vco.execution.state"
- o "vco.execution.business.state"
- o "vco.execution.current.activity.name"
- o "vco.execution.start.date"
- o "vco.execution.end.date"
- o "vco.execution.error.details"

- **Installation of a vRealize Automation 7.5 cluster fails during the join-va (join cluster) step**

A new install of vRA 7.5 cluster with 2 or 3 VAs is reporting 'validation failed' on the join-va (join cluster) step.

After waiting up to 15 more minutes without clicking 'retry failed', the status eventually changes to "successful" and installation proceeds further.

This is caused by a premature timeout in the UI wizard (30 minutes) could lead to a failure if the join operation takes longer than 30 minutes.

See Knowledge Base article [58708](#).

- The "Retry All IaaS" functionality in the product Installation wizard is failing with "Validation failed" status ,and a message similar to the following could be seen in the Description field: "An item with the same key has already been added"

That is a known issue affecting vRealize Automation

The workaround for this issue is to execute the following SQL update statement on the embedded vPostgres database: "update cluster_commands set output=" where type like '%install%';" before triggering the "Retry All IaaS" operation again.

- Full day 2 action menu is not shown in IE11 and Edge browsers

Full Day 2 action menu is not visible in IE11 and Edge browsers for deployments with only a 1 or 2 sub machines.

Workaround: While the action list is cut off on the screen, it is possible to scroll to access the entire list. Alternatively, Firefox or Chrome browsers could be used.

- **Day 2 actions such as start, stop, and restart don't appear for Azure machines after upgrade or migration to 7.5**

After upgrade or migration from 7.x to 7.5, start, stop, and restart actions don't appear.

Workaround: See Knowledge Base article [58864](#).

- **Using Subtenant Label as a binding field in Custom Forms design UI does not work**
When trying to use Subtenant Label as binding field in a custom form in the UI, the binding is reverted to Tenant Label.

Use Subtenant Reference field instead in the Custom forms UI. You can also export the Custom Form as yaml, modify the yaml file by putting the correct binding, and then reimport the form.

- **Unable to authenticate with OAuthToken! exception while accessing Business Management tab in vRA mode**

In vRA mode, when the user session expires in vRA, this error message appears on the Business Management tab:

org.springframework.security.authentication.BadCredentialsException: Unable to authenticate with OAuthToken!
The token is expired.

Workaround: Log out and login again.

- **Azure virtual machine form details don't appear after upgrade or migration**

After upgrading or migrating from vRA 7.x to 7.5, existing forms for Azure VMs appear empty.

Workaround: See Knowledge Base article [58864](#).

- **After upgrading to vRA 7.5, the storage grid under Reservation is not populated**

After vRA is upgraded to version 7.5, the storage grid under Reservation is not populated.

Workaround: Restart the VMware vCloud Automation Center Service from the command line or from the vRealize Automation appliance management interface.

- **Removed portal service API**

The following portal service APIs were removed:

- Capacity Usage
- Chargeback
- Reclamation
- Exporting reports to CSV, PDF, etc.

- **Custom updates in setenv.sh file for vRO are overridden after upgrading.**

Custom updates in the setenv.sh file for vRO are overridden after upgrade. The file is located at /usr/lib/vco/app-server/bin/setenv.sh. Update the values where appropriate post-upgrade and restart vco-server to apply the changes.

Known Issues

The known issues are grouped as follows.

- [Installation](#)
- [Upgrade](#)
- [Previous Known Issues](#)

Installation

- **New The vRA Installation cannot correct IIS configuration issues.**

The vRA installation cannot correct IIS configuration issues when Windows 2019 is used to deploy IaaS-Web components.

Workaround: If you are deploying vRA on Windows 2019, please use the updated version of the IaaS management agent available on the download site.

Upgrade

- **New vRA 7.6 Upgrade PreCheck fails with IIS Server not responding.**

When upgrading an IaaS node manually using the IaaS installer, the prerequisite checks are failing with a status "Not OK" for the "IIS Server" check and issues an error: "The IIS Server is installed and running, but does not respond."

Workaround: Check if the IIS is reachable on the expected port by browsing https://<web_node_fqdn>:<port>. If the IIS is working and it is the only failing prerequisite check - bypass the prerequisite checks and continue.

- **Automatic upgrade from 7.1 may fail to upgrade management Agents.**

The VMware signing certificate used by the Management Agent upgrade procedure for upgrades from 7.1 or earlier is expired and the validation prevents it from being installed on the IaaS nodes, so the Management Agent upgrade cannot proceed. In `"/opt/vmware/var/log/vami/updatecli.log"` there is an error while executing the `"/etc/bootstrap/preupdate.d/00-00-03-upgrade-management-agents"` script, similar to: The VMware certificate was not installed on the nodes listed below. Make sure the Management Agent is up and running on them and that it has connectivity to the VA.

1. Log on each IaaS node.
2. Download the Management Agent installer MSI file from the VAMI download page (https://<va_hostname>:5480/installer).
3. Execute it to upgrade Management Agent manually.
4. SSH to the primary VA and execute `"touch /tmp/do-not-upgrade-ma"` to bypass the Management Agent upgrade.
5. Run the automatic upgrade again from the VAMI Update tab.

For more information, see [Knowledge Base article 67750](#).

- **Updated Pre-upgrade, the vco-configurator service is running on all appliances. However, after upgrading to vRealize Automation 7.6, the vco-configurator service is not running on any appliance.**

After upgrading to vRealize Automation 7.6, the vco-configurator service is not running on

After upgrading to vRealize Automation 7.6, the vco-configurator service is not running on any appliance. As a result, the vRealize Orchestrator configuration interface is not available.

- **Automatic upgrade fails intermittently on the upgrade Management Agents phase indicating one or more MA failed to upgrade. On the VAMI Update page an error similar to the following is displayed:**

"The Management Agent was not upgraded on the nodes listed below. Make sure the Management Agent is up and running on them and that it has connectivity to the VA."

On the VAMI Cluster page the IaaS machine(s), listed in the above error, have not been connected for a period greater than the Management Agent's health check interval (by default 30 seconds)

When examining the MSI upgrade log on the IaaS machines where Management Agent failed to upgrade an error similar to the following can be found:

"Error 1921. Service 'VMware vCloud Automation Center Management Agent' (VMware vCloud Automation Center Management Agent) could not be stopped. Verify that you have sufficient privileges to stop system services."

The MSI upgrade process is not able to stop the Management Agent service in the expected amount of time due to a deadlock in the MA upgrade procedure, timeouts and fails, leaving the Management Agent in stopped state after all.

<https://kb.vmware.com/s/article/66541>

Configuring and Provisioning

- **When using Firefox browser to create or edit a blueprint, max storage value needs to be manually filled in for the Clone Template VM**

When composing a blueprint in Firefox, the max storage value is not auto-filled in on the Machine Resources tab after the Clone template is selected for VM build Information, and it will be marked red and highlighted.

You must manually fill in the value for max storage.

- **Approval is not getting triggered for change lease day 2 action and change lease action goes through without waiting for approval**

When the approval is based on the condition of number of days of lease requested, such as approval policy using policy type as "Service Catalog - Resource Action Request - Change Lease - Deployment/Machine" where an approval is required based on a clause satisfying the number of lease days and is associated with the policy type in catalog entitlement. After the machine is provisioned when you change the lease of the machine, the action processes without invoking any approvals.

Workaround: For Change Lease, use "Always" for approval types instead of adding a clause for number of lease days.

- **Update ASD vSphere endpoint is failing**

When try to update ASD vSphere endpoint in vRA is will fail because of incorrect value for field "instanceToUpdate"

- **Powering on a VM fails when the VM is provisioned from a reservation which contains**

- **Powering on a VM fails when the VM is provisioned from a reservation which contains a single host that is not contained within a cluster.**

Virtual machines do not power on when provisioned from a reservation that contains a single host not contained in a cluster.

Workaround: Move the host to an existing cluster or create a new cluster to contain the host.

- **New Firefox 67 browser does not load the XaaS tabs**

The XaaS tabs under the Design tab do not load when using Firefox browser version 67.

Workaround: There are several options

- Use a different browser
- Disable the u2f feature in Firefox 67
- Use a different version of FireFox

Previous Known Issues

To view a list of previous known issues, click [here](#).

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