

VMware vRealize Orchestrator 8.7 Release Notes

vRealize Orchestrator 8.7

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Introduction

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vRealize Orchestrator 8.7 | 22 MAR 2022

Check for additions and updates to these release notes.

Release Versions

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VMware vRealize Orchestrator 8.7 | 22 March 2022

- vRealize Orchestrator 8.7 Appliance build 19508507
- VRealize Orchestrator 8.7 Update Repository build 19508507

Updates made to this document:

Date	Description of update	Type
03/22/2022	Initial publishing.	

What's New in vRealize Orchestrator 8.7

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vRealize Orchestrator 8.7 includes multiple new features and fixed issues. The new features include:

- **IaaS Inventory and scripting objects update for the vRealize Automation plug-in for vRealize Orchestrator.**

The vRealize Automation plug-in for vRealize Orchestrator now supports IaaS Inventory and scripting objects for `Machines` - `CRUD` and `EntityFinders`. Machines can be managed through vRealize Automation extensibility by the following methods:

- As a service from Service Broker by using vRealize Orchestrator workflows.
- In day 2 operations through resource actions.
- In workflows started through subscriptions.

Additionally, the plug-in now supports:

- The vSphere Machine entity finder (inventory).
- Scripting objects that include Intellisense capabilities.
- The `entityFinder` (convert an ID to a scripting object).
- Performing a CRUD operation with JS methods and associated actions that include:
 - Create machine
 - Update machine (can be used to update the tag, custom properties, or description of the machine)
 - Delete Machine

The plug-in is compatible with vRealize Orchestrator 8.3 and later.

[Learn more about using the vRealize Automation plug-in for vRealize Automation.](#)

- **Updates to the vRealize Orchestrator Dashboard.**

The Key Performance Indicators (KPI) functionality of the vRealize Orchestrator Dashboard is expanded to include two charts that display the status of the workflow runs on the deployment. The first chart includes the running and waiting workflow runs, while the second chart includes the completed and failed workflow runs.

- **New sorting options for the package content grids.**

You can now sort your vRealize Orchestrator package content by name and type.

- **You can now manually disable or enable your vRealize Orchestrator integrations in vRealize Automation.**

You manually disable or enable your vRealize Orchestrator integrations so you can perform maintenance.

[Learn more about disabling and enabling your vRealize Orchestrator integrations.](#)

- **You can now move variables between the input and output tabs.**

The **Variables** tab now includes a new dropdown labeled **move to** which you can use to move the selected variable to either the input or output parameters of the workflow. The **Inputs/Outputs** tab also includes the same dropdown which you can use to move the selected parameter. For example, you can move a input parameter to the output parameter section or move the select parameter back to the **Variables** tab.

- **New OAuth 2.0 bearer token implementation for the REST plug-in.**

When configuring a REST host with a OAuth 2.0 authentication, you can now choose between two token sending strategies. The old behaviour used in previous vRealize Orchestrator releases is represented by the **Query parameter** strategy. The new and recommended approach of sending the token in the Authorization header can be selected by selecting the **Authorization header** strategy. This strategy automatically sets the Authorization header value to `Bearer <token>` when performing a request to the host. The token sending strategy field is present in all authentication-setting workflows and, aside from the user interface, can also be configured from the workflow scripting.

[Learn more about the OAuth 2.0 token sending strategies.](#)

- **Updated vRealize Orchestrator Documentation landing page.**

The left-hand navigation on the vRealize Orchestrator Documentation landing page now lists only the latest versions of the core vRealize Orchestrator guides and the release notes. You can access the guides for previous versions of the product by using the version-selector on each topic page. The landing page still features links to key topics and guides. The vRealize Orchestrator 7.x guides, including the archived docs, are now accessed on the landing page. With these changes, all links to the documentation still work as they did before.

Explore the [landing page](#).

Deploying the vRealize Orchestrator Appliance

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The vRealize Orchestrator Appliance is a VMware Photon OS-based appliance distributed as an OVA file. It is prebuilt and preconfigured with an internal PostgreSQL database, and it can be deployed with vCenter Server 6.0 or later.

The vRealize Orchestrator Appliance is a fast, easy to use, and more affordable way to integrate the VMware cloud stack, including vRealize Automation and vCenter Server, with your IT processes and environment.

For instructions about deploying the vRealize Orchestrator Appliance, see [Download and Deploy the vRealize Orchestrator Appliance](#).

For information about configuring the vRealize Orchestrator Appliance server, see [Configuring a Standalone vRealize Orchestrator Server](#).

Upgrading and Migrating vRealize Orchestrator

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You can upgrade a standalone or clustered vRealize Orchestrator 8.x deployment to the latest product version by using a mounted ISO image.

For more information about upgrading the vRealize Orchestrator Appliance, see [Upgrading vRealize Orchestrator](#).

You can migrate a standalone vRealize Orchestrator instance authenticated with vSphere or vRealize Automation to vRealize Orchestrator 8.7. Product versions of vRealize Orchestrator 7.x supported for migration include versions 7.3 to 7.6. The migration of clustered vRealize Orchestrator 7.x deployments is not supported.

For more information about migrating the vRealize Orchestrator Appliance, see [Migrating vRealize Orchestrator](#).

Plug-ins Installed with vRealize Orchestrator 8.7

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The following plug-ins are installed by default with vRealize Orchestrator 8.7:

- vRealize Orchestrator vCenter Server Plug-In 7.0.0
- vRealize Orchestrator Mail Plug-In 8.0.1
- vRealize Orchestrator SQL Plug-In 1.1.9
- vRealize Orchestrator SSH Plug-In 7.3.0
- vRealize Orchestrator SOAP Plug-In 2.0.6
- vRealize Orchestrator HTTP-REST Plug-In 2.4.1
- vRealize Orchestrator Plug-In for Microsoft Active Directory 3.0.12
- vRealize Orchestrator AMQP Plug-In 1.0.6
- vRealize Orchestrator SNMP Plug-In 1.0.4
- vRealize Orchestrator PowerShell Plug-In 1.0.20
- vRealize Orchestrator Multi-Node Plug-In 8.7.0
- vRealize Orchestrator Dynamic Types 1.3.6
- vRealize Orchestrator vCloud Suite API (vAPI) Plug-In 7.5.2
- VMware vSphere Update Manager Plug-in 7.0.0

Earlier Releases of vRealize Orchestrator

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Features and issues from earlier releases of vRealize Orchestrator are described in the release notes for each release. To review release notes for earlier releases of vRealize Orchestrator, click one of the following links:

- [vRealize Orchestrator 8.6.2](#)
- [vRealize Orchestrator 8.6.1](#)
- [vRealize Orchestrator 8.6](#)
- [vRealize Orchestrator 8.5.1](#)
- [vRealize Orchestrator 8.5](#)
- [vRealize Orchestrator 8.4.2](#)
- [vRealize Orchestrator 8.4.1](#)
- [vRealize Orchestrator 8.4](#)
- [vRealize Orchestrator 8.3](#)
- [vRealize Orchestrator 8.2 Patch 1](#)
- [vRealize Orchestrator 8.2](#)
- [vRealize Orchestrator 8.1 Patch 3](#)
- [vRealize Orchestrator 8.1 Patch 2](#)
- [vRealize Orchestrator 8.1 Patch 1](#)
- [vRealize Orchestrator 8.1](#)
- [vRealize Orchestrator 8.0.1](#)
- [vRealize Orchestrator 8.0](#)
- [vRealize Orchestrator 7.6.0](#)
- [vRealize Orchestrator 7.5.0](#)
- [vRealize Orchestrator 7.4.0](#)

Resolved Issues



- **Incorrectly applied constraints can cause errors with customer resources**

When adding constraints to either the item section of array fields or properties section of objects fields in the properties schema, verify that you have validated these constraints as incorrectly applied constraints can cause issues with the custom resource.

For example, when adding a maximum constraint to a numbers array, you must verify that this constraint does not break the property's default value.

N/A

- **If you run a workflow through a GET operation, the sensitive data in input strings is visible as plain text.**

When you perform a `GET /vro/runs/{runId}` operation for a workflow that includes `SecureString` inputs, the values of these sensitive inputs are visible as plain text.

- **PowerShell action does not return a single value as an array.**

Returning a single item array from a PowerCLI script can cause it to be unwrapped into a single value. This can cause parsing problems if the return type for the action is to an array.

- **Duplicated composite types in the user interface.**

Duplicated composite types can appear in the variable selector for vRealize Orchestrator objects.

- **Fix for the CVE-2021-23337 and CVE-2020-8203 security vulnerabilities reported in the vRealize Orchestrator Control Center.**

The swagger libraries for the vRealize Orchestrator Control Center are updated to resolve the CVE-2021-23337 and CVE-2020-8203 security vulnerabilities.

- **The breakpoint marker in the workflow schema does not activate on mouse click.**

Issues with the way the workflow schema manages the breakpoint toggle can cause the breakpoint marker to become unresponsive.

- **Issues with performing searches in the vRealize Orchestrator Client.**

The vRealize Orchestrator search component loses focus after user input.

Known Issues

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- **Form Renderer in Deployment Details View does not properly render complex arrays.**

As part of the Custom Resource Schema Modification feature we added Form Renderer in the Deployment Details View. In the data grid fields, if there is an array of objects, the array is displayed as '[Object, object]' in the table.

It's known issue and will be fixed in a future release.

- **Custom Resource Objects are not expandable/collapsible**

As part of the Custom Resource Schema Modification feature we added Form Renderer in the Deployment Details View. The object structures before were collapsible, now the heading of the object and the contents are all aligned and they are not collapsible.

It's known issue and will be fixed in a future release.

- **Form Renderer in Deployment Details View truncates long inputs**

As part of the Custom Resource Schema Modification feature we added Form Renderer in the Deployment Details View. The text input field values, that are too long, are not fully displayed. They get cut and there is an invisible scroller that the user can use to view the whole value.

It's known issue in Form Renderer and will be fixed in a future release.

- **Issues with populating the output parameter of scripting tasks.**

For scripting tasks in workflows that include one output parameter, which uses Python, Node.js, or PowerShell as the scripting language, the scripts are not populated by the workflow engine.

Workaround: Add the unused binding to the scripting task.

- **The interaction form for resuming a failed workflow does not display fields for all defined variables when one of the variables is a `Property` type. Inputs for variables coming after the `Property` variable will be hidden. The input fields for the `Property` type will not be populated.**

The variable type is not interpreted for the `Property` type which causes issues during form rendering. The `Property` type is now used while generating the input form.

No workaround.

- **Imported resource elements are reverted to an earlier state.**

After importing a resource element from a file and then updating the resource element without making a commit in Git, the element state is reverted to an earlier state after a certain period of time. For example, you might import a REST host resource element and then run the **Update a REST host** workflow, which does not update the resource element in Git. After a certain period of time, the changes made to the REST host are lost.

Workaround: Manually increase the resource element version from the vRealize Orchestrator Client after the update so the resource state in Git is synchronized.

- **User interface elements enter in a extend-collapse animation loop.**

On slower vRealize Orchestrator environments, clicking on elements in the side navigation while the animations are still in progress might trigger an extend-collapse animation loop.

No workaround.

- **Local changes are not available after duplicating and deleting a workflow.**

You duplicate a workflow and then delete it. In the **Git History** page, there is no local change for the deleted workflow.

No workaround.

- **Pushing commits to a protected Git branch fails.**

If the configured Git branch is protected, the push operation fails consistently but the message that appears indicates that the push is successful.

Workaround: The decision was taken not to fix this issue in the current or upcoming releases of vRealize Orchestrator. This known issue entry is going to be deleted from the release notes for the next release.

Previously Known Issues

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This section contains previously known issues (known issues remaining from earlier releases of vRealize Orchestrator that still exist in the product).

- Adding values to vCenter Server data object properties of the **Array** type is not possible.

When vRealize Orchestrator runs scripts, the vCenter Server plug-in converts JavaScript arrays to Java arrays of a fixed size. As a result, you cannot add new values to vCenter Server data objects that take arrays as property values. You can create an object that takes an array as a property if you instantiate that object by passing it a pre-filled array. However, after you instantiate the object, you cannot add values to the array.

For example, the following code does not work:

```
var spec = new VcVirtualMachineConfigSpec();
spec.deviceChange = [];
spec.deviceChange[0] = new VcVirtualDeviceConfigSpec();
System.log(spec.deviceChange[0]);
```

In the above code, vRealize Orchestrator converts the empty **spec.deviceChange** JavaScript array into the fixed-size Java array **VirtualDeviceConfigSpec[]** before it calls **setDeviceChange()**. When calling **spec.deviceChange[0] = new VcVirtualDeviceConfigSpec()**, vRealize Orchestrator calls **getDeviceChange()** and the array remains a fixed, empty Java array. Calling **spec.deviceChange.add()** results in the same behavior.

Workaround: Declare the array as a local variable:

```
var spec = new VcVirtualMachineConfigSpec();
var deviceSpec = [];
deviceSpec[0] = new VcVirtualDeviceConfigSpec();
spec.deviceChange = deviceSpec;
System.log(spec.deviceChange[0]);
```

- During the installation of a plug-in in the vRealize Orchestrator Control Center, an error message appears.

When you install a plug-in from the **Manage Plug-Ins** page in Control Center, the following error message appears: **Plug-in 'name_of_the_plug-in' (plug-in_file_name) is not compatible with the current platform version. Supported platform versions are 'names_of_the_supported_versions'.** Clicking on the 'Install' button will install it anyway.

Workaround: You can safely ignore this error and proceed with the installation of the plug-in.

- **The vRealize Orchestrator authentication configuration might become invalid if the authentication provider certificate changes or regenerates.**

When the SSL certificate of the vRealize Automation or vSphere instance that is configured as the authentication provider in Control Center is changed or regenerated, the vRealize Orchestrator authentication configuration becomes invalid, and the vRealize Orchestrator server cannot start.

Workaround: Import the new authentication provider certificate:

- a Log in to Control Center as **root**.
- b Click **Certificates**.
- c Click the **Import on the Trusted Certificates** tab.
- d Load the SSL certificate from a URL or a file.
- e Click **Import**.

- **The SOAP plug-in cannot connect through an authenticated proxy server.**

When attempting to run the **Add a SOAP host** workflow, you encounter an issue with the proxy server authentication.

Workaround: When running the workflow, use a proxy server that does not require authentication.

- **If you experience issues connecting to a SOAP or a REST host, or importing a certificate, you might have to explicitly enable certain versions of SSL or TLS.**

For information about this issue, see [the Java Secure Socket Extension \(JSSE\) Reference Guide](#).

Workaround: For information about explicitly enabling SSLv3 and TLSv1 for outgoing HTTPS connections, see [How to enable TLSv1.1 and TLSv1.2 for outgoing HTTPS connections in vRO 6.0.x \(KB 2144316\)](#).

- **The SSH plug-in encounters firewall connectivity issues.**

The SSH plug-in cannot connect to a Cisco Adaptive Security Appliance (ASA) firewall.

Workaround: The SSH plug-in for vRealize Orchestrator 7.1 does not support connectivity to a Cisco Adaptive Security Appliance (ASA) firewall.

- **Problems handling non-ASCII characters in certain contexts.**

Using non-ASCII characters in input parameters results in incorrect behavior in the following situations:

- If you run the **SCP put** or **SCP get** workflows from the SSH folder on a file with a name that contains non-ASCII characters, the workflow runs but the name of the resulting file on the destination machine is unreadable.
- If you try to insert non-ASCII characters into variable names, the characters do not appear. This issue occurs for workflow variables and action variables.

No workaround.

- **The Storage VSAN workflows of the vCenter Server plug-in do not support adding Solid-State Drive (SSD) disks to an ESXi host.**

The **Add disks to disk group** and **Remove disks from disk groups** workflows do not support adding SSD disks as capacity disks to ESXi hosts.

No workaround.

- **The RESTOperation ID does not initialize properly if the REST host instance is created by using a Swagger spec.**

In the HTTP-REST plug-in, when the REST host instance is created by a Swagger spec, the **RESTOperation ID** does not initialize properly and the **getOperation** method of the **RESTHost** object does not work.

No workaround.