VMware VIBE plug-in

Snap Creator Framework

NetApp
January 20, 2026

This PDF was generated from https://docs.netapp.com/us-en/snap-creator-framework/administration/concept_requirements_for_vcloud_vapp_backup_and_restore_operations_using_the_vmware_plug_in.html on January 20, 2026. Always check docs.netapp.com for the latest.

Table of Contents

VMware VIBE plug-in 1
Requirements for vCloud vApp backup and restore operations using the VMware plug-in 4
Virtual machine backup and restore by using the VMware plug-in 5

VMware VIBE plug-in

Snap Creator supports the backup of VMware virtual machines and vApps through the VMware VIBE plug-in. The VMware plug-in is an integrated plug-in for both virtual machines with vSphere and vApps with vCloud Director.

You must consider the following when you use the VMware VIBE plug-in:

- The VMware plug-in is supported only on Windows and Linux.

  If you are using a non-Windows or non-Linux Snap Creator Server, you need a Snap Creator Windows or Linux agent to run the VMware plug-in.

- Unified Manager server as a proxy is not supported.
- Mount, unmount, and backup operations using Open Systems SnapVault and archive log management are not supported.
- VMware high availability (HA) with the VMware plug-in is not tested and is not supported.
- VMware vCenter Linked Mode with the VMware plug-in is not tested and is not supported.
- The VMware plug-in does not support raw device mapping (RDM).
- The volumes are discovered using automatic detection.

  You cannot view a discovered destination volume if it is not in a SnapMirror relationship. You can use the dpstatus command to check the SnapMirror relationship. If a SnapMirror relationship does not exist, you must first create the SnapMirror relationship.

- Before you perform restore operations, you must delete all of the VMware snapshot copies.
- After the restore operations are complete, you must run a Snap Creator backup of the restored virtual machines and vApps so that the new environment is cleaned up and all VMware snapshot copies are removed.

  If the VMware plug-in cannot clean up VMware snapshot copies and displays an error, you must remove the VMware snapshot copies manually. The VMware plug-in does not guarantee 100% VMware snapshot copy removal. This is a known VMware issue.

- The VMware plug-in supports only 32-bit Snap Creator with a 32-bit Linux system and 64-bit Snap Creator with a 64-bit Linux system.
- The deleted virtual machines cannot be restored.
- The volume restore operation is not supported; only application-defined restore operations are supported.
- The value of the SC_AGENT_TIMEOUT parameter should be set to 1800 or higher.
- The default value of the VIBE_VMWARE_snapshot parameter (VMware snapshot option) is N.
- If the value of APP_DEFINED_RESTORE is Y, then the SnapVault restore operation using the graphical user interface (GUI) is not supported.
- While creating a SnapMirror and SnapVault configuration by using the GUI, you must manually enter the SnapMirror and SnapVault parameters because the SnapMirror and SnapVault relationship is not detected automatically.
- The VMware plug-in discovers the ISO-mounted path as a datastore.

The following table lists the VMware VIBE plug-in parameters, provides the parameter settings, and describes

the parameters.

Parameter	Setting	Description
VIBE_DYNAMIC_VOLUMES_UPDATE	Y or NDefault: not set	If this parameter is set to N, dynamic volume update is not performed, which means you have to set the VOLUMES, SNAPVAULT_VOLUMES, SNAPMIRROR_VOLUMES, and NTAP_DFM_DATA_SET parameters manually.
VIBE_NOPING	Default: N	Specifies that Internet Control Message Protocol (ICMP) is not used to ping VMware plug-in or the storage controllers.
VIBE_VCLOUD_IPADDR	N/A	Specifies the IP address or the host name of the vCloud Director that is used for logging in to (vCloud only).
VIBE_VCLOUD_USER	N/A	Specifies the user name to be used for logging in to the vCloud Director (vCloud only). You must set @org or @system (top-level vCloud database). The vCloud Director system administrator user name must be used to perform the backup and restore operations. These operations fail if the organization administrator credentials or any other user credentials are used. Example: `administrator@system`
VIBE_VCLOUD_PASSWD	N/A	Specifies the password that is associated with the specified VIBE_VCLOUD_USER (vCloud only).
VIBE_VCENTER_USER	N/A	Specifies the user name to be used for logging in to vCenter.

Parameter	Setting	Description
VIBE_VCENTER_PASSWD	N/A	Specifies the password that is associated with the specified VIBE_VCENTER_USER.
VIBE_VCLOUD_NAMES	N/A	Lists the organization, virtual data center, and vApp object names that should be backed up (vCloud only).Example: `ORG:VDC1,VDC2:VAPP1,VAPP2; ORG2:VDC3:;ORG3::VAPP6`
VIBE_VSPHERE_NAMES	N/A	Lists the datastores and virtual machines that should be backed up per vCenter (vSphere only).Example: `VCENTER1:DS1:VM1;VCENTER2; DS2,DS3:;VCENTER3::VM4`
VIBE_TRIM_VSPHERE_NAMES	N/A	Lists the virtual machines that should be removed from backup per vCenter (vSphere only).Example: `VCENTER1:VM99;VCENTER2:VM5 ,VM12`
VIBE_RESTORE_INTERVAL	Default: `30 seconds`	Specifies the time between each restore check.
VIBE_RESTORE_TIME	Default: `3600 seconds`	Specifies the total time to wait for a complete restore operation to finish.
VIBE_VMWARE_SNAPSHOT	Default: N	Creates a VMware snapshot copies during backup.

Parameter	Setting	Description
VIBE_IGNORE_EXPORTFS=Y or N	Default: N	You must manually add this parameter to the Snap Creator VIBE configuration file. When the value is set to Y, Data ONTAP operating in 7-Mode configurations ignores any exportfs values on the controller. Instead, Data ONTAP maps the volume export path as /vol/datastore_name, where a datastore name is specified for backup. Older environments using vFiler units might use this methodology because the exportfs information of individual datastores is not available from a vFiler unit. Instead, a configuration needs to map the path based on queries to vfiler0.

Related information

Interoperability Matrix Tool: mysupport.netapp.com/matrix

Requirements for vCloud vApp backup and restore operations using the VMware plug-in

Snap Creator supports the backup of vCloud vApp through the VMware plug-in. vApp and virtual machine backup copies are made by the VMware plug-in through the vCloud Director API and vSphere API, which are invoked on the VMware vCloud Director and VMware vCenter server, respectively.

For vApp backup and restore operations to be successful, you must provide the following details in the configuration file:

- vCloud IP and credentials
- vCloud organizations, virtual data centers (vDCs), and vApp names

If more than one vCenter is attached to vCloud, then the password for the all vCenter servers should be same.

You must consider the following when performing the vCloud backup and restore operations:

- The backup and restore processes for both VMware and vCloud are very similar except for the discovery process, in which vCloud backups require additional discovery of the vCloud Director metadata using representational state transfer (REST) APIs.
- You should provide details of the vCloud with the organizations, vDCs, and vApps to be backed up.

- If a vDC is listed, all the vApps in the vDC are backed up.
- vCloud module discovers virtual machines associated with any vApp that must be backed up and puts them on a backup list.
- If a vApp selected for backup is contained within an organization or a vDC that is also selected for backup, the vApp is backed up only once.

For Virtual Machine File System (VMFS) restore operations using the VMware plug-in, there must be enough space in the volume to create a LUN clone that is equal to the size of the LUN.

Virtual machine backup and restore by using the VMware plug-in

Snap Creator supports the backup of VMware virtual machines through the VMware plug-in. Virtual machine backups are taken through the vSphere API on the VMware vCenter server.

For virtual machine backup, you must provide the following details in the configuration file:

- vCenter IP or host name and credentials
- vSphere virtual machines and datastore names

Snap Creator discovers vCenter only if vCenter is configured on the default port (443).

For the restore operation, you should provide the backup parameters and the Snapshot copy name.

Consider the following when performing the VMware backup and restore processes:

- If a virtual machine is listed and is not available, the plug-in displays an error message. It will not be able to restore a lost virtual machine even if it is backed up.
- If a datastore is listed, all the virtual machines in the datastore are backed up.
- Only the listed virtual machines or virtual machines located in the datastores specified are backed up.
- If a virtual machine selected for backup is contained within a datastore that is also selected for backup, it will be backed up only once.
- The VMware plug-in supports both Network File System (NFS) and VMware Virtual Machine File System (VMFS) datastores.
  - Virtual machine restores on an NFS datastore use Single File SnapRestore (SFSR) on the storage system, which avoids host copies.
  - To restore a virtual machine on a VMFS datastore, perform the following steps:
    i. Use FlexClone or LUN clone of the LUN contained in a specific restore Snapshot copy.
    ii. Map it to the cluster.
    iii. Use vCenter API calls to copy contents from the Snapshot copy of the VMFS datastore to the original VMFS datastore.

Copyright information

Copyright © 2026 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at http://www.netapp.com/TM are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.