Troubleshooting

Collecting Troubleshooting Information

Information collected using the commands listed below can be sent to Cisco Technical Support for troubleshooting purposes.

SUMMARY STEPS

1. **show system sysmgr service name vman**
2. **show mgmt-infra trace message vman_trace**
3. **virtual-service move name** *virtual-services-name* **[core | log] to** *destination-url*
4. **show mgmt-infra trace settings vman_trace**
5. **set trace control vman_trace buffer-size** *buffer-size*
6. **set trace control vman_trace clear [location active]**
7. **set trace vman_trace level {debug | default | err | info | warning} [location active]**

DETAILED STEPS

	Command or Action	Purpose

Step 1	**show system sysmgr service name vman**
	
	 Example:
	 `Switch# ` **`show system sysmgr service name vman`**
	 `Service "vman" ("vman", 209):`
	 `        UUID = 0x49B, PID = 3283, SAP = 808`
		This command shows the health of the virtualization manager (VMAN) process.

	Command or Action	Purpose

	State: SRV_STATE_HANDSHAKED (entered at time Tue Mar 5 01:11:41 2013).
	        Restart count: 1
	        Time of last restart: Tue Mar 5 01:11:41 2013.
	        The service never crashed since the last reboot.
	        Tag = N/A
	        Plugin ID: 0	

Step 2	**show mgmt-infra trace message vman_trace** **Example:** Switch# **show mgmt-infra trace message vman_trace** [07/09/14 21:48:03.580 UTC 1 4634] (debug): walking db file vman_fdb_vm_ofa forvm ofa [07/09/14 21:48:03.626 UTC 2 4634] (debug): storage elem: 90 1 1 virt_strg_pool_bf [07/09/14 21:48:03.626 UTC 3 4634] (debug): storage elem: /bootflash/virtual-instance/ofa/ha_sync.img [07/09/14 21:48:03.626 UTC 4 4634] (debug): storage elem: /crashinfo/virtual-instance/ofa/core [07/09/14 21:48:03.626 UTC 5 4634] (debug): done walking... [07/09/14 21:48:03.626 UTC 6 4634] (debug): walking db file vman_fdb_vm_ofa forvm ofa [07/09/14 21:48:03.627 UTC 7 4634] (notice): Per-VM mac address binding is not set [07/09/14 21:48:03.627 UTC 8 4634] (ERR): Could not get info from FileDB. [07/09/14 21:48:03.627 UTC 9 4634] (debug): aborting walk at vm ofa [07/09/14 21:48:03.627 UTC a 4634] (debug): done walking... [07/09/14 21:48:03.627 UTC b 4634] (debug): Added tech support info: /tmp/vman_techsupport.20140709214803.4634 [07/09/14 21:48:03.627 UTC c 4634] (debug): cmd 'modprobe tipc' executing [07/09/14 21:48:06.040 UTC d 4634] (debug): cmd 'tipc-config -addr=1.1.1 -netid=4711' executing [07/09/14 21:48:06.106 UTC e 4634] (debug): OIR-Client init: Registered with handle(0x4252c2db)	This command contains information logged by the VMAN process.
Step 3	**virtual-service move name** *virtual-services-name* **[core	log] to** *destination-url* **Example:** Switch# **virtual-service move name openflow_agent core to bootflash:/**	Moves application log or core files to a specified destination location. This command can be used when the application running in the container has an issue (but the container is running as expected).
Step 4	**show mgmt-infra trace settings vman_trace** **Example:** Switch# **show mgmt-infra trace settings vman_trace** One shot Trace Settings: Buffer Name: vman_trace Default Size: 262144 Current Size: 262144 Traces Dropped due to internal error: Yes Total Entries Written: 2513 One shot mode: No One shot and full: No Disabled: False	This command displays trace settings of a trace buffer.

	Command or Action	Purpose
Step 5	**set trace control vman_trace buffer-size** *buffer-size*	This command sets the trace buffer size.
Step 6	**set trace control vman_trace clear [location active]**	This command clears the trace buffer.
Step 7	**set trace vman_trace level {debug	default	err	info	warning} [location active]**	This command sets the trace level.

Troubleshooting: Installing Applications in a Virtual Services Container

This topic describes the possible reasons why installation of an application in a virtual services container may not have been successful, and the corresponding solutions.

Problem Installation of an application in a virtual services container is not successful.

Possible Cause Installation of the application may still be ongoing.

Solution Check the installation status, by using the **show virtual-service list** command. The following sample output shows an application that has status Installed.

```
Switch# show virtual-service list
Virtual Service List:
Name                    Status            Package Name
-----------------------------------------------------------------
multiova                Activated         multiova-working.ova
WAAS                    Installed         ISR4451X-WAAS-5.2.0-b...
```

Possible Cause An application with the same name has already been installed.

Solution Ensure that an application with the same name has not already been installed, by using the **show virtual-service list** command. You can verify this by referencing the Name field.

Possible Cause The target media has not been installed.

Solution Target media for Cisco Catalyst 4500 series switches —bootflash.

Solution Ensure that the target media is installed, by using the **show version** command.

```
Switch# show version
Cisco IOS Software, IOS-XE Software, Catalyst 4500 L3 Switch Software
(cat4500e-UNIVERSALK9-M), Version 03.07.01.E.227 EARLY DEPLOYMENT [PROD BUILD] ENGINEERING
 NOVA_WEEKLY BUILD, synced to SYNC_FOR_BENI_MR1
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Tue 31-Mar-15 17:48 by gereddy



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```

```
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documentation or "License Notice" file accompanying the IOS-XE software,
or the applicable URL provided on the flyer accompanying the IOS-XE
software.


ROM: 15.0(1r)SG1
ott-of-c4k-103 uptime is 5 days, 21 hours, 45 minutes
Uptime for this control processor is 5 days, 21 hours, 47 minutes
System returned to ROM by reload
System image file is "slot0:/cat4500e-universalk9.SSA.03.07.01.E.227.152-3.2.27.E1.bin"
Jawa Revision 7, Snowtrooper Revision 0x0.0x1C

Last reload reason: Reload command


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http://www.cisco.com/wwl/export/crypto/tool/stqrg.html

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License Information for 'WS-X45-SUP7-E'
License Level: entservices Type: Permanent
Next reboot license Level: entservices

cisco WS-C4507R+E (MPC8572) processor (revision 8) with 2097152K bytes of physical memory.
Processor board ID FOX1447GWNQ
MPC8572 CPU at 1.5GHz, Supervisor 7
Last reset from Reload
2 Virtual Ethernet interfaces
96 Gigabit Ethernet interfaces
8 Ten Gigabit Ethernet interfaces
511K bytes of non-volatile configuration memory.

Configuration register is 0x0
```

Possible Cause There is insufficient space to install an application.

Solution Check the amount of space that is available, by using the **dir** command.

```
Switch# dir bootflash:
Directory of bootflash:/

72980 drwx 4096 Apr 8 2015 07:59:36 +00:00 tracelogs
72981 drwx 4096 Mar 21 2014 14:08:37 +00:00 temp
14597 drwx 4096 Apr 8 2015 08:00:52 +00:00 temp_amd
72963 drwx 4096 Apr 12 2014 11:47:04 +00:00 onep
72986 drwx 4096 Feb 25 2015 17:59:49 +00:00 virtual-instance-stby-sync
72984 -rw- 26388480 Mar 20 2015 19:08:38 +00:00 cat4k_rel.ova
73051 -rw- 180 Apr 8 2015 08:00:02 +00:00 virtual-instance.conf
72982 -rw- 52068 Mar 28 2014 17:39:38 +00:00 label_3
73006 -rw- 72601600 Apr 2 2015 16:46:07 +00:00 ofa-cat4k.ova
87553 -rw- 1037 Mar 6 2015 12:13:43 +00:00 vman_ofa.log.4720.20150306121343
87554 -rw- 3427 Mar 6 2015 12:18:52 +00:00 vman_ofa.log.4720.20150306121852
87555 -rw- 113201 Mar 14 2015 18:51:05 +00:00 vman_ofa.log.4720.20150314185105
```

```
87556 -rw- 22215 Mar 14 2015 18:54:55 +00:00 vman_ofa.log.4720.20150314185455
87557 -rw- 72642560 Mar 18 2015 12:26:32 +00:00 ofa-1.1.64113n-cat4500-SSA-k9.ova
73005 -rw- 26388480 Apr 3 2015 10:55:09 +00:00 ofa-2.0.0-r1-cat4500-SPA-k9.ova
87569 -rw- 72642560 Feb 27 2015 16:05:41 +00:00 ofa-1.1.64109n-cat4500-SSA-k9.ova
```

Possible Cause Disk quota for container is insufficient.

Solution Ensure that sufficient disk quota is allotted to the virtual services container, by using the **show virtual-service global** command.

```
Switch# show virtual-service global
Virtual Service Global State and Virtualization Limits:

Infrastructure version : 1.5
Total virtual services installed : 1
Total virtual services activated : 1

Machine types supported   : LXC
Machine types disabled    : KVM

Maximum VCPUs per virtual service : 1
Resource virtualization limits:
Name                      Quota     Committed    Available
-------------------------------------------------------------
system CPU (%)                6            1            5
memory (MB)                 256          256            0
bootflash (MB)              256          164           92
```

Possible Cause An invalid OVA package has been used for installation (Invalid package/Parsing error/Invalid machine specification error).

Solution Ensure that the OVA package copied to the device matches in size with the OVA package on the FTP server. Refer to the release for details or Contact Cisco Technical Support to ensure that the OVA file provided is compatible with the device operating system and not corrupted.

Possible Cause The virtual services container does not install properly due to unknown reasons.

Solution Uninstall the virtual services container. If the problem persists, collect general troubleshooting information and contact Cisco Technical Support.

Related Topics

Troubleshooting: Activating Applications in a Virtual Services Container

This topic describes the possible reasons why the activation of an application in a virtual services container may not have been successful, and the corresponding solutions.

Problem Activation of an application in a virtual services container is not successful.

Possible Cause Activation of the application may still be ongoing.

Solution Check the activation status of the application, by using the **show virtual-service list** command. The following sample output shows an application that status `Activated`.

```
Switch# show virtual-service list

Virtual Service List:
Name                     Status          Package Name
-----------------------------------------------------------------
WAAS                     Activated       ISR4451X-WAAS-5.2.0-b...
```

Possible Cause The virtual services container does not have sufficient resources for activation of the application.

Solution Check if the device has sufficient resources for virtualization, including—memory, disk space, and CPU utilization. You can display the resource requirement for virtualization, by using the **show virtual-service** command.

```
Switch# show virtual-service

Virtual Service Global State and Virtualization Limits:

Infrastructure version : 1.5
Total virtual services installed : 1
Total virtual services activated : 1

Machine types supported   : LXC
Machine types disabled    : KVM

Maximum VCPUs per virtual service : 1
Resource virtualization limits:
Name                          Quota     Committed     Available
-----------------------------------------------------------------
system CPU (%)                    6             1             5
memory (MB)                     256           256             0
bootflash (MB)                  256           164            92
```

Possible Cause The application does not activate properly due to unknown reasons.

Solution Deactivate and uninstall the application. If the problem persists, collect general troubleshooting information and contact Cisco Technical Support.

Related Topics

Troubleshooting: Uninstalling Applications in a Virtual Services Container

This topic describes the possible reasons why you may not have been successful with the process of uninstalling an application in a virtual services container, and the corresponding solutions.

Problem Uninstallation of an application from the virtual services container is not successful.

Possible Cause The application being uninstalled is not completely deactivated.

Solution Check the activation status of the application, by using the **show virtual-service list** command. The following sample output shows an application in the `Deactivated` status, and can be uninstalled.

```
Switch# show virtual-service list

Virtual Service List:
Name                    Status          Package Name
------------------------------------------------------------------
WAAS                    Deactivated     ISR4451X-WAAS-5.2.0-b...
```

Possible Cause The application does not uninstall due to unknown reasons.

Solution As a last resort, delete the `virtual-instance.conf`, by using the **delete** command, and then reload the device.

```
Switch# delete bootflash:virtual-instance.conf
Switch#  reload
```
If the problem persists, collect general troubleshooting information and contact Cisco Technical Support.

Troubleshooting: Deactivating Applications in a Virtual Services Container

This topic describes the possible reasons why you may not have been successful with the process of deactivating an application in a virtual services container, and the corresponding solutions.

Problem Deactivation of an application is not successful.

Possible Cause The application being deactivated is not activated.

Solution Check the activation status of the application, by using the **show virtual-service list** command. The following sample output shows an application that is in the `Activated` state, and can be deactivated.

```
Switch# show virtual-service list

Virtual Service List:
Name                    Status          Package Name
------------------------------------------------------------------
oneFW                   Activated       iosxe-cx-9.0.2-hudson...
```

Possible Cause Deactivation takes a long time (5 minutes).

Solution Check if application directories are in use. Ensure that there are no shells open in the application file system directories on the device.

Possible Cause The application does not deactivate gracefully due to unknown reasons.

Solution As a last resort, uninstall the application (if you have not already done this) and delete the `virtual-instance.conf` configuration file, by entering the **delete** command, and then reload the device. This step deletes all applications installed in the virtual services container.

```
Switch#  delete bootflash:virtual-instance.conf
Switch#  reload
```

Solution If the problem persists, collect general troubleshooting information and contact Cisco Technical support.