Troubleshooting Cisco vWAAS

This chapter describes how to identify and resolve operating issues with Cisco vWAAS.

This chapter contains the following sections:

- Resolving Diskless Startup and Disk Failure
- Troubleshooting vWAAS Device Registration
- Verifying vWAAS Virtual Interfaces
- Troubleshooting vWAAS Networking
- Troubleshooting Undersized Alarm

Resolving Diskless Startup and Disk Failure

Under rare conditions, the vWAAS VM may boot into diskless mode if other VMs on the host VM server do not release control of system resources or the physical disks become unresponsive. The vWAAS device raises a **disk_failure** critical alarm for disk01 and the **show disk details** EXEC command shows disk01 as Not used until replaced.

To recover from this failure, follow these steps:

Step 1   Re-enable the disk.

```
vwaas# config
vwaas(config)# no disk disk-name disk00 shutdown force
vwaas(config)# exit
```

Step 2   Reload vWAAS.

```
vwaas# reload
```

Troubleshooting vWAAS Device Registration

You must register each vWAAS device with the WAAS CM. If a vWAAS device is not registered with the WAAS CM, the `Not registered alarm` is displayed when you use the **show alarms** command.

Figure 8-1   Display for show alarms Command: Not Registered Alarm

```
vWAAS# show alarms

Critical alarms:
---------------
None

Major alarms:
------------
      Alarm ID         Module/Submodule       Instance
     ---------------   ----------------     --------------
    1 not registered    vwaas/model         vwaas/model   <----- Not registered alarm
. . .

Minor alarms:
------------
None
```

Verifying vWAAS Virtual Interfaces

Two virtual interfaces are available on vWAAS devices, the WAAS CM and the CLI:

To show vWAAS virtual interfaces on the WAAS CM, choose *Device* > **Configure** > **Network** > **Network Interfaces** to display the screen shown in Figure 8-2.

Figure 8-2   Network Interfaces for Device Window
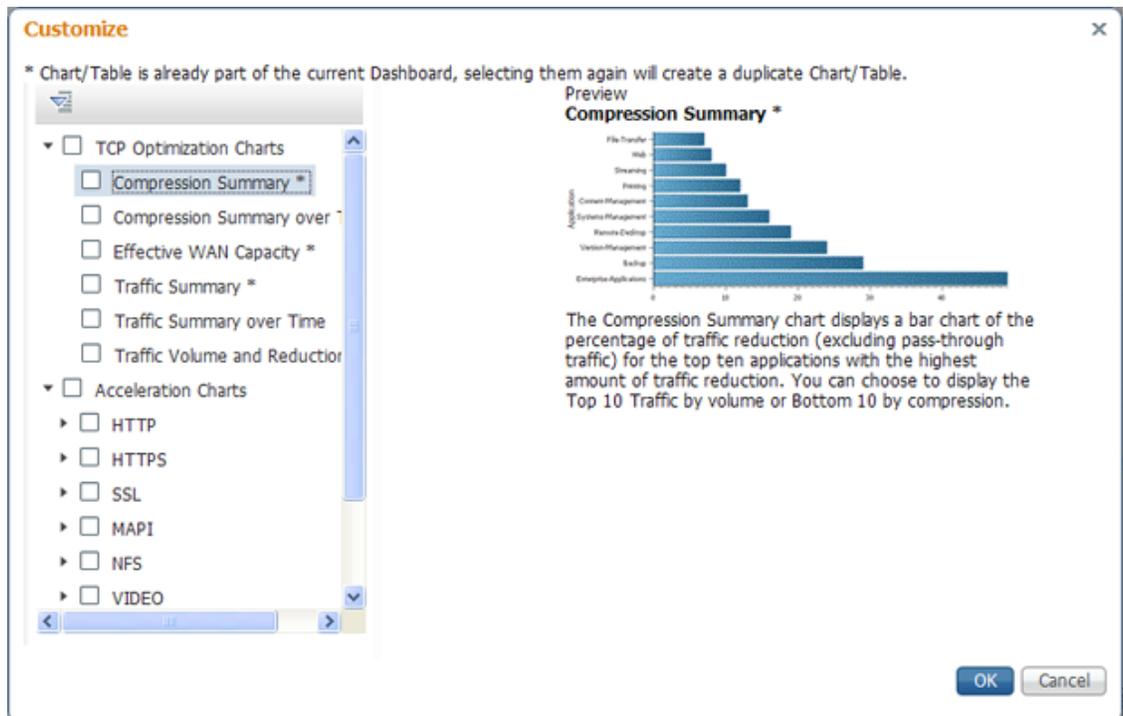
For the CLI, use the **show running-config interface** command to display the virtual interfaces. For additional details on the virtual interfaces, use the **show interface virtual 1/0** command or the **show interface virtual 2/0** command.

Troubleshooting vWAAS Networking

If you see no connections on the vWAAS device, use VMware VSphere Client to view the networking configuration and to check if the vWAAS device is connected to the correct vSwitch.

To use the VSphere Client to trace vWAAS connectivity from the device page, follow these steps:

Step 1   Identify which network label the network adapter is connected to.

Step 2   Determine the virtual switch that this network is connected to.

Step 3   Determine the physical NIC that is a member of this virtual switch.

Step 4   Verify that the configuration is correct.

Step 5   Verify that the virtual switch settings are correctly configured to reach the network.

Step 6   Verify the following on the vWAAS device: configured IP address, netmask, default gateway, and primary interface. For more information on these parameters, see Verifying vWAAS Virtual Interfaces.

Step 7   From the vWAAS device, ping the default gateway and WAAS CM to verify that they are reachable.

Troubleshooting Undersized Alarm

If the proper memory and hard disk resources are not allocated to the vWAAS device, the Undersized alarm is displayed when you use the **show alarms** command. Figure 8-3 shows sample output for the **show alarms** command for the Undersized alarm.

Figure 8-3   Sample Output for show alarms Command: Undersized Alarm

```
vWAAS# show alarms

Critical alarms:
---------------
None

Major alarms:
------------
       Alarm ID          Module/Submodule        Instance
     -------------       ----------------       -------------
     1 undersized          vwaas/model            memory         <----- Undersized alarm
. . .

Minor alarms:
------------
None
```

Table 8-1 describes the fields in the **show alarms** command output.

Table 8-1   Field Descriptions for the show alarms Command

Field	Description
Critical Alarms	Critical alarms affect the existing traffic through the WAE and are considered fatal (the WAE cannot recover and continue to process traffic. **Note** WAAS and vWAAS provide three levels of alarms: critical, major, and minor. For more information on alarms and the **show alarms** command, see *Cisco Wide Area Application Services Command Reference*.
Major Alarms	Major alarms indicate a major service (such as the cache service) has been damaged or lost. Urgent action is necessary to restore this service. However, other node components are fully functional and the existing service should be minimally impacted. **Note** WAAS and vWAAS provide three levels of alarms: critical, major, and minor. For more information on alarms and the **show alarms** command, see *Cisco Wide Area Application Services Command Reference*.
Alarm ID	Type of event that caused the alarm.
Module/Submodule	The software module affected.
Instance	The object that this alarm is associated with. As shown in Figure 8-3, the instance for this alarm is *memory*. The Instance field does not have predefined values; each Instance value is application specific.

You will not see this alarm if you are using valid OVA files to deploy vWAAS. If the alarm shown in x is displayed, delete the vWAAS VM and redeploy the vWAAS VM using a valid OVA file.