



Installing the Cisco VSG on a Cisco Cloud Service Platform Virtual Services Appliance

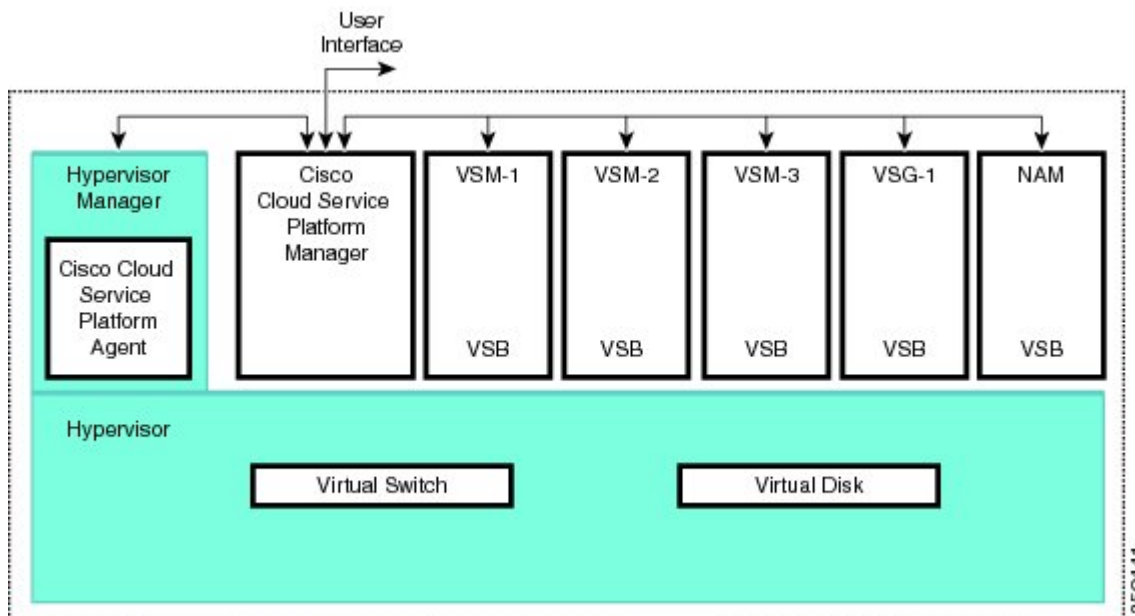
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Information About Installing the Cisco VSG on the Cisco Cloud Service Platform

The Cisco VSG software is provided with the other virtual service blade (VSB) software in the Cisco Cloud Service Platform bootflash: repository directory. The Cisco Cloud Service Platform has up to six virtual service blades (VSBs) on which you can choose to place a Cisco VSG, VSM, or Network Analysis Module (NAM).

Figure 1: Cisco Cloud Service Platform Architecture Showing Virtual service Blades Usage



Prerequisites for Installing Cisco VSG on the Cisco Cloud Service Platform

- You must first install the Cisco Cloud Service Platform Virtual Services Appliance and connect it to the network. For procedures on installing the hardware, see the *Cisco Cloud Service Platform Virtual Services Appliance Hardware Installation Guide*.
- After you install the hardware appliance and connect it to the network, you can configure the Cisco Cloud Service Platform management software and create and configure new VSBs that might host the Cisco VSG. For procedures on configuring the software, see the *Cisco Cloud Service Platform Software Configuration Guide*.

Guidelines and Limitations

- The Cisco Cloud Service Platform appliance and its hosted Cisco VSG VSBs must share the same management VLAN.
- Unlike the data and high availability (HA) VLANs that are set when a Cisco VSG VSB is created, a Cisco VSG VSB inherits its management VLAN from the Cisco Cloud Service Platform.



Caution

Do not change the management VLAN on a VSB. Because the management VLAN is inherited from the Cisco Cloud Service Platform, any changes to the management VLAN are applied to both the Cisco Cloud Service Platform and all of its hosted VSBs.

Installing Cisco VSG on a Cisco Cloud Service Platform

You can install the Cisco VSG on a Cisco Cloud Service Platform as a virtual service blade (VSB).

Before you begin

- Log in to the CLI in EXEC mode.
- Know the name of the Cisco VSG VSB that you want to create.
- Whether you are using a new ISO file from the bootflash repository folder or from an existing VSB, do one of the following:
 - If you are using a new ISO file in the bootflash repository, you know the filename, for example, `nexus-1000v.5.2.1.VSG2.1.2a.iso`
 - If you are using an ISO file from an existing VSB, you must know the name of the VSB type. This procedure includes information about identifying this name.
- Know the following properties for the Cisco VSG VSB:
 - HA ID Management IP address
 - Cisco VSG name
 - Management subnet mask length
 - Default gateway IPv4 address
 - Administrator password
 - Data and HA VLAN IDs
- This procedure shows you how to identify and assign data and HA VLANs for the Cisco VSG VSB. Do not assign a management VLAN because the management VLAN is inherited from the Cisco Cloud Service Platform.

SUMMARY STEPS

1. `switch# configure terminal`
2. `(config)# virtual-service-blade name`
3. `(config-vsbs-config)# description description`
4. `(config-vsbs-config)# virtual-service-blade-type [name name | new iso file name]`
5. `(config-vsbs-config)# interface name vlan vlanid`
6. `(config-vsbs-config)# no shutdown`
7. `(config-vsbs-config)# interface name vlan vlanid`
8. `(config-vsbs-config)# enable [primary | secondary]`
9. `(config-vsbs-config)# show virtual-service-blade name name`
10. (Optional) `(config-vsbs-config)# copy running-config startup-config`

DETAILED STEPS

Step 1 `switch# configure terminal`

Enters global configuration mode.

Step 2 (config)# **virtual-service-blade** *name*

Creates the named VSB and places you in to configuration mode for that service. The name can be an alphanumeric string of up to 80 characters.

Step 3 (config-vs-b-config)# **description** *description*

(Optional) Adds a description to the Cisco VSG VSB.

The *description* is an alphanumeric string of up to 80 characters.

Step 4 (config-vs-b-config)# **virtual-service-blade-type** [**name** *name* | **new iso file** *name*]

Specifies the type and name of the software image file to add to this Cisco VSG VSB:

- Use the **new** keyword to specify the name of the new Cisco VSG ISO software image file in the bootflash repository folder.
- Use the **name** keyword to specify the name of the existing Cisco VSG VSB type. Enter the name of an existing type found in the command output.

Step 5 (config-vs-b-config)# **interface** *name* **vlan** *vlanid*

Applies the interface and VLAN ID to this Cisco VSG. Use the interface names from the command output.

Note If you try to apply an interface that is not present, the following error is displayed:

ERROR: Interface name not found in the associated virtual-service-blade type.

Caution Do not assign a management VLAN. Unlike data and HA VLANs, the management VLAN is inherited from the Cisco Cloud Service Platform.

Caution To prevent loss of connectivity, you must configure the same data and HA VLANs on the hosted Cisco VSGs.

Step 6 (config-vs-b-config)# **no shutdown**

Enables the interface.

Step 7 (config-vs-b-config)# **interface** *name* **vlan** *vlanid*

Applies the interface and VLAN ID to this Cisco VSG. Use the interface names from the command output.

Note If you try to apply an interface that is not present, the following error is displayed:

ERROR: Interface name not found in the associated virtual-service-blade type.

Caution Do not assign a management VLAN. Unlike data and HA VLANs, the management VLAN is inherited from the Cisco Cloud Service Platform.

Caution To prevent loss of connectivity, you must configure the same data and HA VLANs on the hosted Cisco VSGs.

Step 8 (config-vs-b-config)# **enable** [**primary** | **secondary**]

Initiates the configuration of the VSB and then enables it.

If you enter the **enable** command without the optional **primary** or **secondary** keywords, it enables both.

If you are deploying a redundant pair, you do not need to specify primary or secondary.

If you are enabling a nonredundant VSB, you can specify its HA role as follows:

- Use the **primary** keyword to designate the VSB in a primary role.
- Use the **secondary** keyword to designate the VSB in a secondary role.

The Cisco Cloud Service platform prompts you for the following:

- HA ID
- Management IP address
- Management subnet mask length
- Default gateway IPv4 address
- Cisco VSG name
- Administrator password

Step 9 (config-vsbs-config)# **show virtual-service-blade name** *name*

(Optional) Displays the new VSB for verification.

While the Cisco Cloud Service Platform management software is configuring the Cisco VSG, the output for this command progresses from in progress to powered on.

Step 10 (Optional) (config-vsbs-config)# **copy running-config startup-config**

Saves the running configuration persistently through reboots and restarts by copying it to the startup configuration.

Example

This example shows how to configure a Cisco Cloud Service Platform appliance VSB as a Cisco VSG:

```

csp# configure
Enter configuration commands, one per line. End with CNTL/Z.
N1010-63(config)# virtual-service-blade vsg-1
N1010-63(config)# description vsg-1 for Tenant1
N1010-63(config-vsbs-config)# virtual-service-blade-type new nexus-1000v.5.2.1.VSG2.1.2a.iso
N1010-63(config-vsbs-config)# interface data vlan 923
N1010-63(config-vsbs-config)# interface ha vlan 930
N1010-63(config-vsbs-config)# no shutdown
N1010-63(config-vsbs-config)# enable
Enter vsb image: [nexus-1000v.5.2.1.VSG2.1.2a.iso]
Enter HA id[1-4095]: 1002
Management IP version [V4/V6]: [V4]
Enter Management IP address: 10.2.71.117
Enter Management subnet mask: 255.255.255.0
IPv4 address of the default gateway: 10.2.0.1
Enter HostName: VSG-1
Enter the password for 'admin': Hello123
N1010-63(config-vsbs-config)#exit
N1010-63)#

```

This example show how to install the Cisco VSG on a Cisco Cloud Service Platform as a VSB.

```

N1010-63# configure
N1010-63(config)# virtual-service-blade vsg-1
N1010-63(config-vsbs-config)# show virtual-service-blade-type summary

-----
Virtual-Service-Blade-Type   Virtual-Service-Blade
-----
VSG-2.1                     VSG-NH-hpv
                             hyperv-soak
                             VSG-354
                             VSG-357
                             vsg-1

N1010-63(config-vsbs-config)# virtual-service-blade-type new nexus-1000v.5.2.1.VSG2.1.2a.iso
or
N1010-63(config-vsbs-config)# show virtual-service-blade name vsg-1

N1010-63(config-vsbs-config)# description vsg-1 for Tenant1
N1010-63(config-vsbs-config)# show virtual-service-blade name vsg-1

-----
virtual-service-blade vsm2
Description:
Slot id: 2
Host Name:
Management IP:
VSB Type Name : VSG-2.1
Interface: ha vlan: 0
Interface: management vlan: 231
Interface: data vlan: 0
Interface: internal vlan: NA
Ramsize: 2048
Disksize: 3
Heartbeat: 0
HA Admin role: Primary
HA Oper role: NONE
Status: VSB NOT PRESENT
Location: PRIMARY
SW version:
HA Admin role: Secondary
HA Oper role: NONE
Status: VSB NOT PRESENT
Location: SECONDARY
SW version:
VSB Info:

-----
N1010-63(config-vsbs-config)# interface data vlan 1044
or
N1010-63(config-vsbs-config)# interface ha vlan 1045

N1010-63(config-vsbs-config)# enable

-----
Enter domain id[1-1024]: 1014
Enter Management IP address: 10.78.108.40
Enter Management subnet mask length 28
IPv4 address of the default gateway: 10.78.108.117
Enter Switchname: VSG-1
Enter the password for 'admin': Hello_123

-----
N1010-63(config-vsbs-config)# show virtual-service-blade name vsg-1
Description:
Slot id:      4
Host Name:    VSG-Fire-hpv

```

```

Management IP: 10.78.108.40
VSB Type Name : VSG-1.2
Configured vCPU: 1
Operational vCPU: 1
Configured Ramsize: 2048
Operational Ramsize: 2048
Disksize: 3
Heartbeat: 521511

```

```
Legends: P - Passthrough
```

```

-----
Interface          Type          MAC          VLAN   State   Uplink-Int
                   Pri  Sec Oper  Adm
-----
VsbEthernet4/1    data 0002.3d70.3f0c 1044   up    up Po3   Po3
VsbEthernet4/2    management 0002.3d70.3f0b 231    up    up Po1   Po1
VsbEthernet4/3    ha 0002.3d70.3f0d 1045   up    up Po2   Po2
                  internal    NA         NA     up    up

```

```

HA Role: Primary
  HA Status: ACTIVE
  Status:     VSB POWERED ON
  Location:   PRIMARY
  SW version: 5.2(1)VSG2(1.2a)
HA Role: Secondary
  HA Status: STANDBY
  Status:     VSB POWERED ON
  Location:   SECONDARY
  SW version: 5.2(1)VSG2(1.2a)
VSB Info:
  Domain ID : 1054

```

```
N1010-63(config-vsbs-config)# copy running-config startup-config
```

This example shows how to display a virtual service blade summary on the Cisco Cloud Service Platform:

```
N1010-63(config-vsbs-config)# show virtual-service-blade summary
```

```

-----
Name              HA-Role   HA-Status   Status               Location
-----
VSG-NH-hpv        PRIMARY   ACTIVE      VSB POWERED ON      PRIMARY
VSG-NH-hpv        SECONDARY STANDBY     VSB POWERED ON      SECONDARY
hyperv-soak       PRIMARY   NONE        VSB NOT PRESENT     PRIMARY
hyperv-soak       SECONDARY NONE        VSB NOT PRESENT     SECONDARY
VSG-354           PRIMARY   ACTIVE      VSB POWERED ON      PRIMARY
VSG-354           SECONDARY STANDBY     VSB POWERED ON      SECONDARY
VSG-1             PRIMARY   ACTIVE      VSB POWERED ON      PRIMARY
VSG-1             SECONDARY STANDBY     VSB POWERED ON      SECONDARY

```

