



# Cisco Nexus 7000 Series NX-OS Virtual Device Context Commands

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This chapter describes the Cisco Nexus 7000 Series NX-OS virtual device context (VDC) commands.

## allocate interface ethernet

To allocate Ethernet interfaces to a virtual device context (VDC), use the **allocate interface ethernet** command. To revert to the default settings, use the **no** form of this command.

**allocate interface ethernet** *slot/port*

**allocate interface ethernet** *slot/port* [- *port*]

**allocate interface ethernet** *slot/port*, **ethernet** *slot1/port ...* [, **ethernet** *slot1/port*]

**no allocate interface ethernet** *slot/port*

**no allocate interface ethernet** *slot/port* [- *port*]

**no allocate interface ethernet** *slot/port*, **ethernet** *slot1/port ...* [, **ethernet** *slot1/port*]

<b>Syntax Description</b>	<i>slot/port</i> Slot number and port number for the Ethernet interface.
<b>Defaults</b>	None
<b>Command Modes</b>	VDC configuration
<b>Supported User Roles</b>	network-admin

**Command History**

Release	Modification
6.1(1)	Added the <b>no</b> option.
4.0(1)	This command was introduced.

**Usage Guidelines**

You can use this command only in the default VDC (VDC 1).

Initially, all interfaces belong to the default VDC. You can allocate individual interfaces, ranges of interface, or lists of interfaces.

Use the **show vdc membership** command to display the current allocation of interfaces among the VDCs on the physical device.

**Note**

All configuration for the interface is lost when you allocate them to another VDC.

To remove the interface from the VDC and return them to the default VDC, you must enter VDC configuration mode for the default VDC and allocate the interface to the default VDC.

This command requires the Advanced Services license.

**Examples**

This example shows how to allocate one Ethernet interface to a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# allocate interface ethernet 2/1
Moving ports will cause all config associated to them in source vdc to be removed. Are you
sure you want to move the ports? [yes] yes
```

This example shows how to allocate a range of Ethernet interfaces on the same module to a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# allocate interface ethernet 2/1 - 4
Moving ports will cause all config associated to them in source vdc to be removed. Are you
sure you want to move the ports? [yes] yes
```

This example shows how to allocate a list of Ethernet interfaces on the same module to a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# allocate interface ethernet 2/1, ethernet 2/3, ethernet 2/5
Moving ports will cause all config associated to them in source vdc to be removed. Are you
sure you want to move the ports? [yes] yes
```

This example shows how to move an Ethernet interface back to the default VDC:

```
switch# configure terminal
switch(config)# vdc switch
switch(config-vdc)# allocate interface ethernet 2/1
Moving ports will cause all config associated to them in source vdc to be removed. Are you
sure you want to move the ports? [yes] yes
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>show vdc membership</b>	Displays VDC interface membership information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.

# boot-order

To allocate the boot order value for a nondefault virtual device context (VDC), use the **boot-order** command.

**boot-order** *number*

Syntax Description	<i>number</i>	Boot order number. The range is from 1 to 4.
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Defaults	1
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Command Modes	VDC configuration
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SupportedUserRoles	network-admin
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Command History	Release	Modification
	4.2(1)	This command was introduced.

**Usage Guidelines** You can use this command only in the default VDC (VDC 1).

The boot order feature has the following characteristics:

- Multiple VDCs can have the same boot order value.
- VDCs with lowest boot order value boot first.
- The Cisco NX-OS software completely starts all VDCs with the same boot order value before starting the VDCs with the next boot order value.
- The Cisco NX-OS software starts VDCs which have the same boot order value in parallel.
- You cannot change the boot order for the default VDC, only nondefault VDCs.

This command requires the Advanced Services license.

**Examples** This example shows how to allocate one Ethernet interface to a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# boot-order 2
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>show vdc detail</b>	Displays detailed information about the VDCs.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.

# copy running-config startup-config vdc-all

To copy the running configuration for all virtual device contexts (VDCs) to the startup configuration, use the **show copy running-config startup-config vdc-all** command.

## copy running-config startup-config vdc-all

**Syntax Description** This command has no arguments or keywords.

**Defaults** None

**Command Modes** Any command mode

**SupportedUserRoles** network-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

**Usage Guidelines** You can use this command only in the default VDC (VDC 1).  
This command does not require a license.

**Examples** This example shows how to copy the running configuration for all VDCs on the physical device to the startup configuration:

```
switch# copy running-config startup-config vdc-all
[#####] 100%
```

# cpu-share

To control CPU time during periods of contention, use the **cpu-share** command.

**cpu-share** *priority*

<b>Syntax Description</b>	<i>priority</i>	Specifies the priority of the vdc control cpu time during periods of contention. The range is from 1 to 10.
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<b>Defaults</b>	5
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<b>Command Modes</b>	Global configuration mode
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<b>SupportedUserRoles</b>	network-admin network-operator vdc-admin vdc-operator
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	6.1(1)	This command was introduced.

<b>Usage Guidelines</b>	VDCs being used for testing should have comparatively lower values than those vdc's being used for production work.  This command does not require a license.
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<b>Examples</b>	This example shows how to set the VDC cpu share to 10:
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```
switch(config)# vdc foo
Note: Creating VDC, one moment please ...
switch(config-vdc)# cpu-share 10
switch(config-vdc)#
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	vdc	Creates or specifies a VDC and enters VDC configuration mode.

# ha-policy

To configure the high availability (HA) policy for a virtual device context (VDC), use the **ha-policy** command.

```
ha-policy {dual-sup {bringdown | restart | switchover} | single-sup {bringdown | reload |
restart}}
```

Syntax Description	Parameter	Description
	<b>dual-sup</b>	Specifies the HA policy for devices with dual supervisor modules.
	<b>bringdown</b>	Puts the VDC in a failed state. To recover from the failed state, you must reload the physical device.
	<b>restart</b>	Deletes the VDC and recreates it using the startup configuration.
	<b>switchover</b>	Initiates a supervisor module switchover.
	<b>dual-sup</b>	Specifies the HA policy for devices with dual supervisor modules.
	<b>reload</b>	Reloads the physical device and recreates the VDC using the startup configuration.

Defaults	Description
Default VDC:	<b>dual-sup</b> default is <b>switchover</b> <b>single-sup</b> default is <b>reload</b>
Nondefault VDC:	<b>dual-sup</b> default is <b>switchover</b> <b>single-sup</b> default is <b>restart</b>

Command Modes	Mode
	VDC configuration

SupportedUserRoles	Role
	network-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines	Guidelines
	You can use this command only in the default VDC (VDC 1).
	You cannot change the HA policy for the default VDC.
	This command requires the Advanced Services license.

Examples	Example
	This example shows how to specify the HA policy for a VDC: <pre>switch# configure terminal switch(config)# vdc MyDevice switch(config-vdc)# ha-policy reset</pre>



**Related Commands**

<b>Command</b>	<b>Description</b>
<b>show vdc</b>	Displays VDC interface membership information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.

# limit-resource module-type

To configure the line card type resource limit for a virtual device context (VDC), use the **limit-resource module-type** command. To revert to the default, use the **no** form of this command.

**limit-resource module-type** [f1 | f2 | f2e | m1 | m1x1| m2x1]

**no limit-resource module-type** [f1 | f2 | f2e | m1 | m1x1| m2x1]

## Syntax Description

<b>f1</b>	(Optional) Enables F1 type line cards in the VDC.
<b>f2</b>	(Optional) Enables F2 type line cards in the VDC.
<b>f2e</b>	(Optional) Enables F2E type line cards in the VDC.
<b>m1</b>	(Optional) Enables M1 type line cards in the VDC.
<b>m1x1</b>	(Optional) Enables M1X1 type line card in the VDC.
<b>m2x1</b>	(Optional) Enables M2X1 type line card in the VDC.

## Defaults

None

## Command Modes

VDC configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
6.2(2)	Added the <b>f2e</b> keyword.
6.1(1)	Added the <b>m2x1</b> keyword.
5.1(1)	This command was introduced.

## Usage Guidelines

By default, both the M1 and F1 types of line cards are supported in a VDC.



### Note

In Cisco NX-OS Release 6.1x, an F2E module is treated as an F2 module type. For Cisco NX-OS Release 6.2(2), F2 module type is automatically upgraded to F2 F2E.

The Cisco Nexus 7710 switch and Cisco Nexus 7718 switch supports only F2E module types in both an Ethernet VDC and Storage VDC.

A VDC supports only the following line card type modes:

- **limit-resource module-type M1**(default)—This module restricts a VDC to M1 modules only.
- **limit-resource module-type F1**—This module restricts a VDC to F1 modules only.

- no limit-resource module-type—This module allows a combination of F1 and M1 modules in a VDC.

**Note**

This command does not support VDC resource templates.

This command does not require a license.

**Examples**

This example shows how to enable the M2X1type line card in the VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource module-type m2x1
switch(config-vdc)#
```

This example shows how to configure the line card type for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource module-type f1
This will cause all ports of unallowed types to be removed from this vdc. Continue? [yes]
switch(config-vdc)
```

This example shows how to revert to the default line card type for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource module-type f1
This will cause all ports of unallowed types to be removed from this vdc. Continue? [yes]
switch(config-vdc)#
```

**Related Commands**

Command	Description
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.

# limit-resource m4route-mem

To configure IPv4 multicast route map memory resource limits for a virtual device context (VDC) or a VDC resource template, use the **limit-resource m4route-mem** command. To revert to the default, use the **no** form of this command.

**limit-resource m4route-mem** [**minimum** *min-value*] **maximum** *max-value*

**no limit-resource m4route-mem**

## Syntax Description

<b>minimum</b>	(Optional) Specifies the minimum value reserved for the VDC.
<i>min-value</i>	Minimum amount of IPv4 multicast route memory in megabytes. The range is from 1 to 90 MB.
<b>maximum</b>	Specifies the maximum limit value as resources are available.
<i>max-value</i>	Maximum amount of IPv4 multicast route memory in megabytes. The range is from 1 to 90 MB and must be equal to or greater than the minimum value.

## Defaults

For the default VDC, the default minimum and maximum limit value is 58 MB.  
For a nondefault VDC, the default minimum and maximum limit value is 8 MB.

## Command Modes

VDC configuration  
VDC resource template configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
5.0(2)	Changed the minimum and maximum values.
4.1(2)	This command was introduced.

## Usage Guidelines

The multicast routing information base (RIB) for IPv4 is in shared memory. The total available shared memory for the RIB for all VDCs on a physical device with 4 GB of memory is 256 MB. You can have approximately 11,000 routes, each with 16 next-hops, in 4 MB of IPv4 multicast route map memory.



### Note

Take care when reserving IPv4 multicast routing map memory for a VDC not to reserve more of the shared memory than is available.

The Cisco NX-OS software reserves the minimum limit for the resource. Changing the minimum limit for IPv4 multicast routing map memory takes affect only after a device reload or a stateful supervisor module switchover.

**Note**

You can set only one value for the IPv4 multicast route memory resource maximum and minimum limits. If you specify a minimum limit, that is the value for both the minimum and maximum limits and the maximum limit is ignored. If you specify only a maximum limit, that is the value for both the minimum and maximum limits.

This command does not require a license.

**Examples**

This example shows how to configure the IPv4 multicast route memory limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource m4route-mem minimum 8 maximum 64
```

This example shows how to revert to the default IPv4 multicast route memory limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource m4route-mem
```

This example shows how to configure the IPv4 multicast route memory limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource m4route-mem minimum 4 maximum 40
d
```

This example shows how to revert to the default IPv4 multicast route memory limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource m4route-mem
```

**Related Commands**

Command	Description
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.
<b>vdc resource template</b>	Creates or specifies a VDC resource template and enters VDC resource template configuration mode.

# limit-resource m6route-mem

To configure IPv6 multicast route map memory resource limits for a virtual device context (VDC) or a VDC resource template, use the **limit-resource u6route-mem** command. To revert to the default, use the **no** form of this command.

**limit-resource m6route-mem** [**minimum** *min-value*] **maximum** *max-value*

**no limit-resource m6route-mem**

## Syntax Description

<b>minimum</b>	(Optional) Specifies the minimum value reserved for the VDC.
<i>min-value</i>	Minimum amount of IPv6 multicast route memory in megabytes. The range is from 1 to 20.
<b>maximum</b>	Specifies the maximum limit value as resources are available.
<i>max-value</i>	Maximum amount of IPv6 multicast route memory in megabytes. The range is from 1 to 20 and must be equal to or greater than the minimum value.

## Defaults

For the default VDC, the default minimum and maximum limit value is 8 MB.  
For a nondefault VDC, the default minimum and maximum limit value is 2 MB.

## Command Modes

VDC configuration  
VDC resource template configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
5.0(2)	Changed the minimum and maximum values.
4.1.(2)	This command was introduced.

## Usage Guidelines

The multicast routing information base (RIB) for IPv6 is in shared memory. The total available shared memory for RIB in a physical device with 4 GB of memory is 256 MB for both IPv4 and IPv6 route map memory. You can have approximately 11,000 routes, each with 16 next-hops, in 4 MB of IPv6 route map memory.



### Note

Take care when reserving IPv6 route map memory for a VDC not to reserve more of the shared memory than is available.

The Cisco NX-OS software reserves the minimum limit for the resource. Changing the minimum limit for IPv6 multicast routing map memory takes affect after a device reload or a stateful supervisor module switchover.

**Note**

You can set only one value for the IPv6 multicast route memory resource maximum and minimum limits. If you specify a minimum limit, that is the value for both the minimum and maximum limits and the maximum limit is ignored. If you specify only a maximum limit, that is the value for both the minimum and maximum limits.

This command does not require a license.

**Examples**

This example shows how to configure the IPv6 multicast route memory limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource m6route-mem minimum 8 maximum 12
```

This example shows how to revert to the default IPv6 multicast route memory limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource m6route-mem
```

This example shows how to configure the IPv6 multicast route memory limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource m6route-mem minimum 4 maximum 16
```

This example shows how to revert to the default IPv6 multicast route memory limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource m6route-mem
```

**Related Commands**

Command	Description
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.
<b>vdc resource template</b>	Creates or specifies a VDC resource template and enters VDC resource template configuration mode.

# limit-resource monitor-session

To configure switched port analyzer (SPAN) monitor session resource limits for a virtual device context (VDC) or a VDC resource template, use the **limit-resource monitor-session** command. To revert to the default, use the **no** form of this command.

**limit-resource monitor-session minimum** *min-value* **maximum** {*max-value* | **equal-to-min**}

**no limit-resource monitor-session**

## Syntax Description

<b>minimum</b>	Specifies the minimum value reserved for the VDC.
<i>min-value</i>	Minimum number of SPAN monitor sessions. The range is from 0 to 2.
<b>maximum</b>	Specifies the maximum limit value as resources are available.
<i>max-value</i>	Maximum number of SPAN monitor sessions. The range is from 0 to 2.
<b>equal-to-min</b>	Specifies that the maximum limit is always equal to the minimum limit.

## Defaults

The default minimum is 0.  
The default maximum is 2.

## Command Modes

VDC configuration  
VDC resource template configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
4.0(1)	This command was introduced.

## Usage Guidelines

You can use this command only in the default VDC (VDC 1).

The Cisco NX-OS software reserves the minimum limit for the resource. Changing the minimum limit for SPAN monitor sessions takes affect immediately.

This command does not require a license.

## Examples

This example shows how to configure the SPAN monitor session limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource monitor-session minimum 1 maximum 2
```



This example shows how to revert to the default SPAN monitor session limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource monitor-session
```

This example shows how to configure the SPAN monitor session limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource monitor-session minimum 0 maximum 1
```

This example shows how to revert to the default SPAN monitor session limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource monitor-session
```

#### Related Commands

Command	Description
<code>show vdc resource [detail]</code>	Displays VDC resource limits information.
<code>show vdc resource template</code>	Displays VDC resource limits information.
<code>vdc</code>	Creates or specifies a VDC and enters VDC configuration mode.

# limit-resource monitor-session-erspan-dst

To configure the encapsulated remote switched port analyzer (ERSPAN) destination monitor session resource limits for a virtual device context (VDC), use the **limit-resource monitor-session-erspan-dst** command. To revert to the default, use the **no** form of this command.

**monitor-session-erspan-dst** [**minimum** *min-value* | **maximum** *max-value*]

**no monitor-session-erspan-dst** [**minimum** *min-value* | **maximum** *max-value*]

## Syntax Description

<b>minimum</b>	Specifies the minimum value reserved for the VDC and allocates the minimum monitor ERSPAN destination session.
<i>min-value</i>	Minimum number of erspan-dst monitor sessions. The range is from 0 to 24.
<b>maximum</b>	Specifies the minimum value reserved for the VDC and allocates the maximum monitor ERSPAN destination session.
<i>max-value</i>	Maximum number of erspan-dst monitor sessions. The range is from 0 to 24.

## Defaults

The default minimum is 0.

The default maximum is 24.

## Command Modes

VDC configuration

VDC resource template configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
5.1(1)	This command was introduced.

## Usage Guidelines

This command does not require a license.

## Examples

This example shows how to configure the ERSPAN destination monitor session limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource monitor-session-erspan-dst minimum 5 maximum 15
switch(config-vdc)#
```

This example shows how to revert to the default ERSPAN destination monitor session limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource monitor-session-erspan-dst minimum 5 maximum 15
switch(config-vdc)#
```

**Related Commands**

Command	Description
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>limit-resource monitor-session</b>	Configures Switched Port Analyzer (SPAN) monitor session resource limits for a virtual device context (VDC) or a VDC resource template.

# limit-resource port-channel

To configure port channel resource limits for a virtual device context (VDC) or a VDC resource template, use the **limit-resource port-channel** command. To revert to the default, use the **no** form of this command.

**limit-resource port-channel minimum** *min-value* **maximum** {*max-value* | **equal-to-min**}

**no limit-resource monitor-session**

## Syntax Description

<b>minimum</b>	Specifies the minimum value reserved for the VDC.
<i>min-value</i>	Minimum number of port channels. The range is from 0 to 768.
<b>maximum</b>	Specifies the maximum limit value as resources are available.
<i>max-value</i>	Maximum number of port channels. The range is from 0 to 768.
<b>equal-to-min</b>	Specifies that the maximum limit is always equal to the minimum limit.

## Defaults

The default minimum is 0.  
The default maximum is 768.

## Command Modes

VDC configuration  
VDC resource template configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
4.1(2)	Changed the default maximum limit from 192 to 768.
4.0(1)	This command was introduced.

## Usage Guidelines

You can use this command only in the default VDC (VDC 1).

The Cisco NX-OS software reserves the minimum limit for the resource. Changing the minimum limit for port channels takes affect immediately.

This command does not require a license.

## Examples

This example shows how to configure the port channel resource limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource port-channel minimum 8 maximum 64
```

This example shows how to revert to the default port channel limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource port-channel
```

This example shows how to configure the port channel limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource port-channel minimum 4 maximum 128
```

This example shows how to revert to the default port channel limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource port-channel
```

#### Related Commands

Command	Description
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.
<b>vdc resource template</b>	Creates or specifies a VDC resource template and enters VDC resource template configuration mode.

# limit-resource u4route-mem

To configure IPv4 unicast route map memory resource limits for a virtual device context (VDC) or a VDC resource template, use the **limit-resource u4route-mem** command. To revert to the default, use the **no** form of this command.

**limit-resource u4route-mem** [**minimum** *min-value*] **maximum** *max-value*

**no limit-resource u4route-mem**

## Syntax Description

<b>minimum</b>	(Optional) Specifies the minimum value reserved for the VDC.
<i>min-value</i>	Minimum amount of IPv4 unicast route memory in megabytes. The range is from 1 to 250 MB.
<b>maximum</b>	Specifies the maximum limit value as resources are available.
<i>max-value</i>	Maximum amount of IPv4 unicast route memory in megabytes. The range is from 1 to 250 MB and must be equal to or greater than the minimum value.

## Defaults

For the default VDC, the default minimum and maximum limit value is 96 MB.  
For a nondefault VDC, the default minimum and maximum limit value is 8 MB.

## Command Modes

VDC configuration  
VDC resource template configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
5.0(2)	Changed the minimum and maximum values.
4.1(2)	<ul style="list-style-type: none"> <li>The <b>minimum</b> keyword became optional.</li> <li>The default maximum limit for the default VDC changed from 320 MB to 32 MB.</li> <li>The default maximum limit for nondefault VDCs changed from 320 MB to 8 MB.</li> </ul>
4.0(2)	<ul style="list-style-type: none"> <li>The default maximum limit for the default VDC changed from 256 MB to 320 MB.</li> <li>The default maximum limit for nondefault VDCs changed from 256 MB to 320 MB.</li> </ul>
4.0(1)	This command was introduced.

## Usage Guidelines

The unicast routing information base (RIB) for IPv4 is in shared memory. The total available shared memory for the RIB for all VDCs on a physical device with 4 GB of memory is 256 MB. You can have approximately 11,000 routes, each with 16 next-hops, in 16 MB of IPv4 unicast route map memory.



### Note

Be careful when you are reserving IPv4 unicast routing map memory for a VDC that you do not reserve more of the shared memory than is available.

The Cisco NX-OS software reserves the minimum limit for the resource. Changing the minimum limit for IPv4 unicast routing map memory takes affect only after a device reload or a stateful supervisor module switchover.



### Note

You can set only one value for the IPv4 unicast route memory resource maximum and minimum limits. If you specify a minimum limit, that is the value for both the minimum and maximum limits and the maximum limit is ignored. If you specify only a maximum limit, that is the value for both the minimum and maximum limits.

There are two options to make this command take effect:

- If this is a single-sup system, do a 'copy run start' and reload the box.
- If there are two sup cards, you can do a system-switchover.

This command does not require a license.

## Examples

This example shows how to configure the IPv4 unicast route memory limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource u4route-mem minimum 8 maximum 64
```

This example shows how to revert to the default IPv4 unicast route memory limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource u4route-mem
```

This example shows how to configure the IPv4 unicast route memory limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource u4route-mem minimum 4 maximum 40
```

This example shows how to revert to the default IPv4 unicast route memory limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource u4route-mem
```

## Related Commands

<b>Command</b>	<b>Description</b>
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.
<b>vdc resource template</b>	Creates or specifies a VDC resource template and enters VDC resource template configuration mode.



# limit-resource u6route-mem

To configure IPv6 unicast route map memory resource limits for a virtual device context (VDC) or a VDC resource template, use the **limit-resource u6route-mem** command. To revert to the default, use the **no** form of this command.

**limit-resource u6route-mem** [**minimum** *min-value*] **maximum** *max-value*

**no limit-resource u6route-mem**

Syntax Description	minimum	(Optional) Specifies the minimum value reserved for the VDC.
	<i>min-value</i>	Minimum amount of IPv6 route memory in megabytes. The range is from 1 to 100 MB.
	maximum	Specifies the maximum limit value as resources are available.
	<i>max-value</i>	Maximum amount of IPv6 route memory in megabytes. The range is from 1 to 100 MB and must be equal to or greater than the minimum value.

## Defaults

For the default VDC, the default minimum and maximum limit value is 24 MB.  
For a nondefault VDC, the default minimum and maximum limit value is 4 MB.

## Command Modes

VDC configuration  
VDC resource template configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
5.0(2)	Changed the minimum and maximum values.
4.1(2)	<ul style="list-style-type: none"> <li>The <b>minimum</b> keyword became optional.</li> <li>The default maximum limit for the default VDC changed from 192 MB to 16 MB.</li> <li>The default maximum limit for nondefault VDCs changed from 192 MB to 4 MB.</li> </ul>
4.0(2)	<ul style="list-style-type: none"> <li>The default maximum limit for the default VDC changed from 256 MB to 192 MB.</li> <li>The default maximum limit for nondefault VDCs changed from 256 MB to 192 MB.</li> </ul>
4.0(1)	This command was introduced.

**Usage Guidelines**

The unicast routing information base (RIB) for IPv6 is in shared memory. The total available shared memory for RIB in a physical device with 4 GB of memory is 256 MB for both IPv4 and IPv6 route map memory. You can have approximately 11,000 routes, each with 16 next-hops, in 16 MB of IPv6 route map memory.

**Note**

Be careful when you are reserving IPv4 unicast routing map memory for a VDC that you do not reserve more of the shared memory than is available.

The Cisco NX-OS software reserves the minimum limit for the resource. Changing the minimum limit for IPv6 unicast routing map memory takes affect after a device reload or a stateful supervisor module switchover.

**Note**

You can set only one value for the IPv6 unicast route memory resource maximum and minimum limits. If you specify a minimum limit, that is the value for both the minimum and maximum limits and the maximum limit is ignored. If you specify only a maximum limit, that is the value for both the minimum and maximum limits.

This command does not require a license.

**Examples**

This example shows how to configure the IPv6 unicast route memory limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource u6route-mem minimum 8 maximum 24
```

This example shows how to revert to the default IPv6 unicast route memory limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource u6route-mem
```

This example shows how to configure the IPv6 unicast route memory limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource u6route-mem minimum 4 maximum 32
```

This example shows how to revert to the default IPv6 unicast route memory limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource u6route-mem
```

**Related Commands**

Command	Description
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.
<b>vdc resource template</b>	Creates or specifies a VDC resource template and enters VDC resource template configuration mode.

# limit-resource vlan

To configure VLAN resource limits for a virtual device context (VDC) or a VDC resource template, use the **limit-resource vlan** command. To revert to the default, use the **no** form of this command.

**limit-resource vlan minimum** *min-value* **maximum** {*max-value* | **equal-to-min**}

**no limit-resource vlan**

Syntax Description	minimum	Specifies the minimum value reserved for the VDC.
	<i>min-value</i>	Minimum number of VLANs. The range is from 16 to 4094.
	<b>maximum</b>	Specifies the maximum limit value as resources are available.
	<i>max-value</i>	Maximum number of VLANs. The range is from 16 to 4094.
	<b>equal-to-min</b>	Specifies that the maximum limit is always equal to the minimum limit.

**Defaults**  
The default minimum is 16.  
The default maximum is 4094.

**Command Modes**  
VDC configuration  
VDC resource template configuration

**Supported User Roles**  
network-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

**Usage Guidelines**  
You can use this command only in the default VDC (VDC 1).  
The Cisco NX-OS software reserves the minimum limit for the resource. Changing the minimum limit for VLANs takes affect immediately.  
This command does not require a license.

**Examples**  
This example shows how to configure the VLAN limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource vlan minimum 32 maximum 2056
```

This example shows how to revert to the default VLAN limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource vlan
```

This example shows how to configure the VLAN limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource vlan minimum 24 maximum 3000
```

This example shows how to revert to the default VLAN limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource vlan
```

#### Related Commands

Command	Description
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.
<b>vdc resource template</b>	Creates or specifies a VDC resource template and enters VDC resource template configuration mode.

# limit-resource vrf

To configure virtual routing and forwarding instance (VRF) resource limits for a virtual device context (VDC) or a VDC resource template, use the **limit-resource vrf** command. To revert to the default, use the **no** form of this command.

**limit-resource vrf minimum** *min-value* **maximum** {*max-value* | **equal-to-min**}

**no limit-resource vrf**

## Syntax Description

<b>minimum</b>	Specifies the minimum value reserved for the VDC.
<i>min-value</i>	Minimum number of VRFs. The range is from 2 to 1000.
<b>maximum</b>	Specifies the maximum limit value as resources are available.
<i>max-value</i>	Maximum number of VRFs. The range is from 2 to 1000.
<b>equal-to-min</b>	Specifies that the maximum limit is always equal to the minimum limit.

## Defaults

The default minimum is 16.  
The default maximum is 1000.

## Command Modes

VDC configuration  
VDC resource template configuration

## Supported User Roles

network-admin

## Command History

Release	Modification
5.0(2)	Changed the minimum and maximum values.
4.0(1)	This command was introduced.

## Usage Guidelines

You can use this command only in the default VDC (VDC 1).

The Cisco NX-OS software reserves the minimum limit for the resource. Changing the minimum limit for VRFs takes affect immediately.

This command does not require a license.

## Examples

This example shows how to configure the VRF limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource vrf minimum 32 maximum 1000
```

This example shows how to revert to the default VRF limits for a VDC:

```
switch# configure terminal
switch(config)# vdc MyDevice
switch(config-vdc)# no limit-resource vrf
```

This example shows how to configure the VRF limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource vrf minimum 64 maximum 1000
```

This example shows how to revert to the default VRF limits for a VDC resource template:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource vrf
```

#### Related Commands

Command	Description
<b>show vdc resource</b>	Displays VDC resource limits information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.
<b>vdc resource template</b>	Creates or specifies a VDC resource template and enters VDC resource template configuration mode.

# reload vdc

To reload a nondefault virtual device context (VDC), use the **reload vdc** command.

**reload vdc**

**Syntax Description** This command has no arguments or keywords.

**Defaults** None

**Command Modes** Any command mode in a nondefault VDC

**Supported User Roles** network-admin  
vdc-admin

Command History	Release	Modification
	4.2(1)	This command was introduced.

**Usage Guidelines** You can use the **reload vdc** command only in the nondefault VDCs.



**Note** Use the **reload** command to reload the default VDC, which also reloads all nondefault VDCs.

This command requires the Advanced Services license.



**Caution** Reloading a VDC disrupts all traffic on the VDC.

**Examples** This example shows how to reload a nondefault VDC:

```
switch-TestVDC# reload vdc
```

Related Commands	Command	Description
	reload	Reloads the Cisco NX-OS device.

# show mac vdc

To display the MAC address of a specific virtual device context (VDC), use the **show mac vdc** command.

```
show mac vdc vdc-id
```

<b>Syntax Description</b>	<i>vdc-id</i>	VDC ID. The range is from 1 to 4.
---------------------------	---------------	-----------------------------------

<b>Defaults</b>	None	
-----------------	------	--

<b>Command Modes</b>	Any command mode	
----------------------	------------------	--

<b>SupportedUserRoles</b>	network-admin network-operator vdc-admin vdc-operator	
---------------------------	--	--

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	5.2(1)	This command was introduced.

<b>Usage Guidelines</b>	This command does not require a license.	
-------------------------	--	--

<b>Examples</b>	<p>This example shows how to display the MAC address of a specific VDC:</p> <pre>switch# show mac vdc 1 vdc id = 1, management port mac address = f8:66:f2:09:f2:e8 switch#</pre>	
-----------------	---	--

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show vdc</b>	Displays virtual context device (VDC) information.
<b>show vdc resource</b>	Displays the virtual device context (VDC) resource information.	



# show resource

To display the resource usage for a virtual device context (VDC), use the **show resource** command.

**show resource** [**monitor-sessions** | **port-channel** | **u4route-mem** | **u6route-mem** | **vlan** | **vrf**]

Syntax Description	monitor-sessions	(Optional) Displays the monitor session resource usage.
	<b>port-channel</b>	(Optional) Displays the port channel resource usage.
	<b>u4route-mem</b>	(Optional) Displays the IPv4 unicast route map memory resource usage.
	<b>u6route-mem</b>	(Optional) Displays the IPv6 unicast route map memory resource usage.
	<b>vlan</b>	(Optional) Displays only the VLAN resource information.
	<b>vrf</b>	(Optional) Displays only the virtual forwarding and routing instance (VRF) resource information.

**Defaults** None

**Command Modes** Any command mode

**SupportedUserRoles** network-admin  
network-operator  
vdc-admin  
vdc-operator

Command History	Release	Modification
	4.0(1)	This command was introduced.

**Usage Guidelines** This command does not require a license.

**Examples**

This example shows how to display the resource usage for a VDC:

```
switch# show resource
```

Resource	Min	Max	Used	Unused	Avail
port-channel	0	192	4	0	188
monitor-session	0	2	2	0	0
vlan	16	4094	12	4	4082
u6route-mem	16	256	16	0	232
u4route-mem	32	256	32	0	208
vrf	16	8192	2	14	8158

# show running-config vdc

To display the virtual device context (VDC) information in the default VDC running configuration, use the **show running-config vdc** command.

**show running-config vdc**

---

**Syntax Description** This command has no arguments or keywords.

---

**Defaults** None

---

**Command Modes** Any command mode

---

**SupportedUserRoles** network-admin  
network-operator  
vdc-admin  
vdc-operator

---

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(1)	This command was introduced.

---

---

**Usage Guidelines** You can use this command only in the default VDC (VDC 1).  
This command does not require a license.

**Examples**

This example shows how to display VDC information in the running configuration:

```
switch# show running-config vdc
version 4.0(1)
vdc switch id 1
  limit-resource vlan minimum 16 maximum 4094
  limit-resource monitor-session minimum 0 maximum 2
  limit-resource vrf minimum 16 maximum 1000
  limit-resource port-channel minimum 0 maximum 192
  limit-resource u4route-mem minimum 32 maximum 256
  limit-resource u6route-mem minimum 16 maximum 256
vdc Payroll id 2
  allocate interface Ethernet2/47
  limit-resource vlan minimum 16 maximum 4094
  limit-resource monitor-session minimum 0 maximum 2
  limit-resource vrf minimum 16 maximum 1000
  limit-resource port-channel minimum 0 maximum 192
  limit-resource u4route-mem minimum 8 maximum 256
  limit-resource u6route-mem minimum 4 maximum 256
vdc Engineering id 3
  allocate interface Ethernet2/46
  limit-resource vlan minimum 16 maximum 4094
  limit-resource monitor-session minimum 0 maximum 2
  limit-resource vrf minimum 16 maximum 1000
  limit-resource port-channel minimum 0 maximum 192
  limit-resource u4route-mem minimum 8 maximum 256
  limit-resource u6route-mem minimum 4 maximum 256
vdc resource template MyTemplate
```

# show running-config vdc-all

To display the running configurations for all virtual device contexts (VDCs), use the **show running-config vdc-all** command.

**show running-config vdc-all [all]**

<b>Syntax Description</b>	<b>all</b>	(Optional) Displays VDC default setting information from the running configuration.
<b>Defaults</b>	None	
<b>Command Modes</b>	Any command mode	
<b>Supported User Roles</b>	network-admin network-operator vdc-admin vdc-operator	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(1)	This command was introduced.
<b>Usage Guidelines</b>	You can use this command only in the default VDC (VDC 1). This command does not require a license.	

**Examples**

This example shows how to display the running configurations for all VDCs:

```
switch# show running-config vdc-all
!Running config for vdc: switch

switchto vdc switch
version 4.0(1)
snmp-server enable traps entity
power redundancy-mode combined force
feature tacacs+
feature pbr
feature private-vlan
feature interface-vlan
feature dot1x
feature lacp
feature glbp
feature dhcp
feature eou
feature tunnel
feature cts
logging level glbp 6
role name MyRole
username adminbackup password 5 $1$0ip/C5Ci$oOdx7oJS1BCFpNRmQK4na. role network
-operator
username admin password 5 $1$x.9srJIq$jvKISFQ1sXR4oi44YanxJ0 role network-admin
username User1 password 5 $1$Dm4XUUyR$V1/3B25/84g3YRkOt3Rj50 role network-opera
tor
telnet server enable
ssh key rsa 768 force
kernel core target 0.0.0.0
kernel core limit 1
aaa group server radius aaa-private-sg
    use-vrf management
vlan dot1Q tag native
system default switchport
no system default switchport shutdown
snmp-server user User1 auth md5 0xbc9d5254b8aedec4747ad156d8726ae0 priv 0xbc9d52
54b8aedec4747ad156d8726ae0 localizedkey engineID 128:0:0:9:3:0:24:186:216:63:188
snmp-server user admin auth md5 0xbc9d5254b8aedec4747ad156d8726ae0 priv 0xbc9d52
54b8aedec4747ad156d8726ae0 localizedkey engineID 128:0:0:9:3:0:24:186:216:63:188
snmp-server enable traps license
vrf context management
    ip route 0.0.0.0/0 172.28.230.1
logging level sysmgr 1
logging server 172.28.254.254
vdc switch id 1
    limit-resource vlan minimum 16 maximum 4094
    limit-resource monitor-session minimum 0 maximum 2
    limit-resource vrf minimum 16 maximum 1000
    limit-resource port-channel minimum 0 maximum 192
    limit-resource u4route-mem minimum 32 maximum 256
    limit-resource u6route-mem minimum 16 maximum 256
vdc Payroll id 2
    allocate interface Ethernet2/47
    limit-resource vlan minimum 16 maximum 4094
    limit-resource monitor-session minimum 0 maximum 2
    limit-resource vrf minimum 16 maximum 1000
    limit-resource port-channel minimum 0 maximum 192
    limit-resource u4route-mem minimum 8 maximum 256
    limit-resource u6route-mem minimum 4 maximum 256
vdc Engineering id 3
    allocate interface Ethernet2/46
    limit-resource vlan minimum 16 maximum 4094
```

```
limit-resource monitor-session minimum 0 maximum 2
limit-resource vrf minimum 16 maximum 1000
limit-resource port-channel minimum 0 maximum 192
limit-resource u4route-mem minimum 8 maximum 256
limit-resource u6route-mem minimum 4 maximum 256
vdc resource template MyTemplate

interface Vlan1

interface Ethernet2/1
 shutdown
 switchport
 switchport monitor
 ip access-group markin in
 ip dhcp snooping limit rate 80
 ip arp inspection limit rate 300 burst interval 5

interface Ethernet2/2
 shutdown
 no switchport

interface Ethernet2/2.1
 shutdown

interface Ethernet2/3
 no cdp enable
 shutdown
 storm-control broadcast level 20
 storm-control unicast level 20
 switchport
 dot1x mac-auth-bypass

....

interface mgmt0
 ip address 172.28.231.193/23

line console
 speed 115200
 logging level cdp 6
 event manager applet x
 monitor session 1
 no shut
 monitor session 2
 no shut
 source interface Ethernet2/2 both
 source interface Ethernet2/5 both
 destination interface Ethernet2/1
 destination interface Ethernet2/3
 filter vlan 50
 monitor session 3
 no shut
 logging level dhcp_snoop 6
 logging level eth_port_channel 6
 logging ip access-list cache entries 8000
 logging ip access-list cache interval 300
 logging ip access-list cache threshold 0
 acllog match-log-level 6

!Running config for vdc: Payroll

switchto vdc Payroll
im_verify_ifindex failed for 0x5000000
```

## show running-config vdc-all

```

status: 0x411a0000 - shared pss not opened
if_info_status: 0x0
version 4.0(1)
username admin password 5 $1$f89fb1AG$TK6vd.TAq0rp9Gwzc7j6y0 role network-admin
telnet server enable
ssh key rsa 768 force
aaa group server radius aaa-private-sg
    use-vrf management
snmp-server user admin network-admin auth md5 0xddf68fa88ad2a5ea0818856db35fa9f
    priv 0xddf68fa88ad2a5ea0818856db35fa9fb localizedkey
vrf context management
    ip route 0.0.0.0/0 172.28.230.1
logging server 172.28.254.254

```

```

interface Ethernet2/47
logging ip access-list cache entries 8000
logging ip access-list cache interval 300
logging ip access-list cache threshold 0
accllog match-log-level 6

```

!Running config for vdc: Engineering

```

switchto vdc Engineering
im_verify_ifindex failed for 0x5000000
status: 0x411a0000 - shared pss not opened
if_info_status: 0x0
version 4.0(1)
username admin password 5 $1$pPFrW5.g$rciQSDOB/A/c0N8eXf1081 role network-admin
telnet server enable
ssh key rsa 768 force
aaa group server radius aaa-private-sg
    use-vrf management
snmp-server user admin network-admin auth md5 0x67568a735d6a1f7e4833fd0de8c196f
    priv 0x67568a735d6a1f7e4833fd0de8c196fb localizedkey
vrf context management
    ip route 0.0.0.0/0 172.28.230.1
logging server 172.28.254.254

```

```

interface Ethernet2/46
logging ip access-list cache entries 8000
logging ip access-list cache interval 300
logging ip access-list cache threshold 0
accllog match-log-level 6

```



# show startup-config vdc-all

To display the configuration information for all virtual device contexts (VDCs) in the startup configuration, use the **show startup-config vdc-all** command.

**show startup-config vdc-all**

---

**Syntax Description** This command has no arguments or keywords.

---

**Defaults** None

---

**Command Modes** Any command mode

---

**SupportedUserRoles** network-admin  
network-operator  
vdc-admin  
vdc-operator

---

Command History	Release	Modification
	4.0(1)	This command was introduced.

---

---

**Usage Guidelines** You can use this command only in the default VDC (VDC 1).  
This command does not require a license.

---

**Examples** This example shows how to display information for all VDCs in the startup configuration:

```
switch# show startup-config vdc-all
```

# show vdc

To display virtual context device (VDC) information, use the **show vdc** command.

**show vdc** [*vdc-name*] [**detail**]

Syntax Description	
<i>vdc-name</i>	(Optional) VDC name.
<b>detail</b>	(Optional) Displays detailed information about the VDCs.

**Defaults** None

**Command Modes** Any command mode

**SupportedUserRoles** network-admin  
network-operator  
vdc-admin  
vdc-operator

Command History	Release	Modification
	4.0(1)	This command was introduced.

**Usage Guidelines** In the default VDC, this command displays information about all VDCs on the physical device. In nondefault VDCs, this command display information only about the current VDC.

This command does not require a license.

**Examples** This example shows how to display summary information about VDCs in the default VDC:

```
switch# show vdc
```

```
vdc_id  vdc_name                state                mac
-----  -----                -
1       switch                    active              00:18:ba:d8:3f:fd
2       Payroll                    active              00:18:ba:d8:3f:fe
3       MyVDC                      active              00:18:ba:d8:3f:ff
```

This example shows how to display detailed information about VDCs in the default VDC:

```
switch# show vdc detail
vdc id: 1
vdc name: switch
vdc state: active
vdc mac address: 00:22:55:79:a4:c1
vdc ha policy: RELOAD
vdc dual-sup ha policy: SWITCHOVER
vdc boot Order: 1
vdc create time: Thu May 14 08:14:39 2009
vdc restart count: 0

vdc id: 2
vdc name: payroll
vdc state: active
vdc mac address: 00:22:55:79:a4:c2
vdc ha policy: RESTART
vdc dual-sup ha policy: SWITCHOVER
vdc boot Order: 1
vdc create time: Thu May 14 08:15:22 2009
vdc restart count: 0

vdc id: 3
vdc name: test
vdc state: active
vdc mac address: 00:22:55:79:a4:c3
vdc ha policy: RESTART
vdc dual-sup ha policy: SWITCHOVER
vdc boot Order: 1
vdc create time: Thu May 14 08:15:29 2009
vdc restart count: 0
```

This example shows how to display summary VDC information in a nondefault VDC:

```
switch-Payroll# show vdc Payroll

vdc_id  vdc_name                state      mac
-----  -
2       Payroll                    active     00:18:ba:d8:3f:fe
```

This example shows how to display detailed VDC information in a nondefault VDC:

```
switch-Payroll# show vdc Payroll detail
vdc id: 2
vdc name: payroll
vdc state: active
vdc mac address: 00:22:55:79:a4:c2
vdc ha policy: RESTART
vdc dual-sup ha policy: SWITCHOVER
vdc boot Order: 1
vdc create time: Thu May 14 08:15:22 2009
vdc restart count: 0
```

# show vdc current-vdc

To display the current virtual device context (VDC) identifier information, use the **show vdc current-vdc** command.

**show vdc current-vdc**

**Syntax Description** This command has no arguments or keywords.

**Defaults** None

**Command Modes** Any command mode

**SupportedUserRoles** network-admin  
network-operator  
vdc-admin  
vdc-operator

Command History	Release	Modification
	4.0(1)	This command was introduced.

**Usage Guidelines** You can use this command in any VDC.  
This command does not require a license.

**Examples** This example shows how to display the current VDC identifier information:

```
switch-Payroll# show vdc current-vdc
Current vdc is 2 - Payroll
```

# show vdc membership

To display the interface membership information for the virtual device contexts (VDCs), use the **show vdc membership** command.

**show vdc membership [status]**

<b>Syntax Description</b>	<b>status</b> (Optional) Displays status information about the interfaces.
---------------------------	--

<b>Defaults</b>	None
-----------------	------

<b>Command Modes</b>	Any command mode
----------------------	------------------

<b>SupportedUserRoles</b>	network-admin network-operator vdc-admin vdc-operator
---------------------------	--

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(1)	This command was introduced.

<b>Usage Guidelines</b>	You can use this command only in the default VDC. This command does not require a license.
-------------------------	---

**Examples**

This example shows how to display the interface membership information in the default VDC:

```
switch# show vdc membership

vdc_id: 1 vdc_name: switch interfaces:
Ethernet2/1      Ethernet2/2      Ethernet2/3
Ethernet2/4      Ethernet2/5      Ethernet2/6
Ethernet2/7      Ethernet2/8      Ethernet2/9
Ethernet2/10     Ethernet2/11     Ethernet2/12
Ethernet2/13     Ethernet2/14     Ethernet2/15
Ethernet2/16     Ethernet2/17     Ethernet2/18
Ethernet2/19     Ethernet2/20     Ethernet2/21
Ethernet2/22     Ethernet2/23     Ethernet2/24
Ethernet2/25     Ethernet2/26     Ethernet2/27
Ethernet2/28     Ethernet2/29     Ethernet2/30
Ethernet2/31     Ethernet2/32     Ethernet2/33
Ethernet2/34     Ethernet2/35     Ethernet2/36
Ethernet2/37     Ethernet2/38     Ethernet2/39
Ethernet2/40     Ethernet2/41     Ethernet2/42
Ethernet2/43     Ethernet2/44     Ethernet2/45
Ethernet2/48

vdc_id: 2 vdc_name: Payroll interfaces:
Ethernet2/47

vdc_id: 3 vdc_name: MyVDC interfaces:
Ethernet2/46
```

This example shows how to display the interface membership information in a nondefault VDC:

```
switch-Payroll# show vdc membership

vdc_id: 2 vdc_name: Payroll interfaces:
Ethernet2/47
```

This example shows how to display the interface status information in a default VDC:

```
switch# show vdc membership status

vdc_id: 1 vdc_name: switch interfaces:
Port      Status
----      -
Eth2/1    OK
Eth2/2    OK
Eth2/3    OK
Eth2/4    OK
Eth2/5    OK
Eth2/6    OK
Eth2/7    OK
Eth2/8    OK
Eth2/9    OK
Eth2/10   OK
...
```

# show vdc resource

To display the virtual device context (VDC) resource information, use the **show vdc resource** command.

**show vdc resource** [**monitor-session** | **port-channel** | **u4route-mem** | **vlan** | **vrf**] [**detail**]

Syntax Description		
<b>monitor-session</b>	(Optional)	Displays only the Switched Port Analyzer (SPAN) monitor session resources.
<b>port-channel</b>	(Optional)	Displays only the port channel resource information.
<b>u4route-mem</b>	(Optional)	Displays only the IPv4 unicast route map resource information.
<b>u6route-mem</b>	(Optional)	Displays only the IPv6 unicast route map resource information.
<b>vlan</b>	(Optional)	Displays only the VLAN resource information.
<b>vrf</b>	(Optional)	Displays only the virtual forwarding and routing instance (VRF) resource information.
<b>detail</b>	(Optional)	Displays detailed information.

**Defaults** None

**Command Modes** Any command mode

**SupportedUserRoles** network-admin  
network-operator  
vdc-admin  
vdc-operator

Command History	Release	Modification
	4.0(1)	This command was introduced.

**Usage Guidelines** You can use this command only in the default VDC (VDC 1).  
This command does not require a license.

**Examples**

This example shows how to display summary VDC resource information:

```
switch# show vdc resource

port-channel          0 used          0 unused        192 free        192 total

monitor-session      0 used          0 unused         2 free          2 total

vlan                  14 used         34 unused       16370 free      16384 total

u4route-mem          48 used         0 unused        208 free        256 total

vrf                   6 used          42 unused       8186 free       8192 total
```

This example shows how to display detailed VDC resource information:

```
switch# show vdc resource detail

port-channel          0 used          0 unused        192 free        192 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -
switch      0      192      0         0         192
Payroll     0      192      0         0         192
MyVDC       0      192      0         0         192

monitor-session      0 used          0 unused         2 free          2 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -
switch      0         2         0         0         2
Payroll     0         2         0         0         2
MyVDC       0         2         0         0         2

vlan                  14 used         34 unused       16370 free      16384 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -
switch      16     4094      10         6        4084
Payroll     16     4094       2         14       4092
MyVDC       16     4094       2         14       4092

u4route-mem          48 used         0 unused        208 free        256 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -
switch      32     256       32         0        208
Payroll     8      256       8         0        208
MyVDC       8      256       8         0        208

vrf                   6 used          42 unused       8186 free       8192 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -
switch      16     8192       2         14       8158
Payroll     16     8192       2         14       8158
MyVDC       16     8192       2         14       8158
```

This example shows how to display summary VDC resource information for port channels:

```
switch# show vdc resource port-channel

port-channel          0 used          0 unused        192 free        192 total
```



This example shows how to display detailed VDC resource information for port channels:

```
switch# show vdc resource port-channel detail
```

```
port-channel          0 used          0 unused        192 free        192 total
-----
  Vdc                 Min           Max           Used           Unused          Avail
-----
switch                0            192            0              0              192
Payroll               0            192            0              0              192
MyVDC                 0            192            0              0              192
```

# show vdc resource template

To display the virtual device context (VDC) resource template information, use the **show vdc resource template** command.

```
show vdc resource template [vdc-template-name]
```

<b>Syntax Description</b>	<i>vdc-template-name</i> (Optional) VDC resource template name.
---------------------------	---

<b>Defaults</b>	None
-----------------	------

<b>Command Modes</b>	Any command mode
----------------------	------------------

<b>SupportedUserRoles</b>	network-admin network-operator vdc-admin vdc-operator
---------------------------	--

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(1)	This command was introduced.

<b>Usage Guidelines</b>	You can use this command only in the default VDC (VDC 1). This command does not require a license.
-------------------------	---

**Examples**

This example shows how to display summary information for all VDC resource templates:

```
switch# show vdc resource template
```

```
MyTemplate
-----
Resource           Min           Max
-----
port-channel       8             64

global-default
-----
Resource           Min           Max
-----
u4route-mem       32            256

vdc-default
-----
Resource           Min           Max
-----
port-channel       0             192
monitor-session    0              2
vlan               16            4094
u4route-mem       8             256
vrf               16            8192
```

This example shows how to display summary information for a specific VDC resource template:

```
switch# show vdc resource template MyTemplate
```

```
MyTemplate
-----
Resource           Min           Max
-----
port-channel       8             64
```

## show vdc resource template

This example shows how to display detailed VDC resource information:

```
switch# show vdc resource detail
```

```

port-channel          0 used          0 unused          192 free          192 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -      -      -      -      -
switch          0      192         0         0         192
Payroll         0      192         0         0         192
MyVDC           0      192         0         0         192

monitor-session      0 used          0 unused           2 free           2 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -      -      -      -      -
switch          0         2         0         0         2
Payroll         0         2         0         0         2
MyVDC           0         2         0         0         2

vlan                 14 used          34 unused        16370 free        16384 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -      -      -      -      -
switch          16      4094         10         6         4084
Payroll         16      4094          2        14         4092
MyVDC           16      4094          2        14         4092

u4route-mem         48 used          0 unused          208 free          256 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -      -      -      -      -
switch          32      256         32         0         208
Payroll          8      256          8         0         208
MyVDC            8      256          8         0         208

vrf                  6 used          42 unused         8186 free         8192 total
-----
  Vdc      Min      Max      Used      Unused      Avail
  ----      -      -      -      -      -
switch          16      8192          2        14         8158
Payroll         16      8192          2        14         8158
MyVDC           16      8192          2        14         8158

```

# show vdc shared membership

To display the shared interfaces on a virtual device context (VDC), use the **show vdc shared membership** command.

## show vdc shared membership

**Syntax Description** This command has no arguments or keywords.

**Defaults** None

**Command Modes** Any command mode

**SupportedUserRoles** network-admin  
network-operator  
vdc-admin  
vdc-operator

Command History	Release	Modification
	5.2(1)	This command was introduced.

**Usage Guidelines** This command does not require a license.

**Examples** This example shows how to display the shared interfaces on the VDC:

```
switch# show vdc shared membership
vdc_id: 1 vdc_name: PE3_1 interfaces:
vdc_id: 2 vdc_name: P2 interfaces:
vdc_id: 3 vdc_name: CE3_1 interfaces:
vdc_id: 4 vdc_name: test-vdc interfaces:
switch#
```

Related Commands	Command	Description
	<b>show vdc fcoe-vlan-range</b>	Displays the FCoE VLAN range on the VDC.

# switchback

To switch back to the default virtual device context (VDC) from another VDC, use the **switchback** command.

**switchback**

**Syntax Description** This command has no arguments or keywords.

**Defaults** None

**Command Modes** Any command mode

**SupportedUserRoles** network-admin  
network-operator

Command History	Release	Modification
	4.0(1)	This command was introduced.

**Usage Guidelines** This command requires the Advanced Services license.

**Examples** This example shows how to switch back to the default VDC:

```
switch-MyVDC# switchback
switch(config)#
```

Related Commands	Command	Description
	<b>show current vdc</b>	Displays information about the current VDC.
	<b>switchto vdc</b>	Switches to a nondefault VDC.

# switchto vdc

To switch to another virtual device context (VDC) from the default VDC, use the **switchto vdc** command.

**switchto vdc** *vdc-name*

Syntax Description	<i>vdc-name</i>	VDC name.
--------------------	-----------------	-----------

Defaults	None
----------	------

Command Modes	Any command mode
---------------	------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines	<ul style="list-style-type: none"> <li>Only users with the network-admin or network-operator role can use the switchto vdc command. No other users are permitted to use it.</li> <li>No user can grant permission to another role to use the switchto vdc command.</li> <li>After a network-admin uses the switchto vdc command, this user becomes a vdc-admin for the new VDC. Similarly, after a network-operator uses the switchto vdc command, this user becomes a vdc-operator for the new VDC. Any other roles associated with the user are not valid after the switchto vdc command is entered.</li> <li>After a network-admin or network-operator uses the switchto vdc command, this user cannot use this command to switch to another VDC. The only option is to use the switchback command to return to the original VDC.</li> </ul>
------------------	---

You can use this command only from the default VDC (VDC 1).

To return to the default VDC, use the **exit** from EXEC mode or the **switchback** command.

This command requires the Advanced Services license.

---

**Examples**

This example shows how to switch to a VDC:

```
switch# switchto vdc MyDevice
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2008, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General Public License (LGPL) Version 2.1. A copy of each
such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
switch-MyDevice#
```

---

**Related Commands**

Command	Description
<b>show current vdc</b>	Displays information about the current VDC.
<b>switchback</b>	Returns to the default VDC.



# system admin-vdc migrate

To configure the default VDC used for switchwide configuration to copy any local config from default VDC to a new VDC, use the **system admin-vdc migrate** command.

```
system admin-vdc migrate vdc
```

```
no system admin-vdc
```

Syntax Description	
<i>vdc</i>	Specifies a new vdc.

Defaults	
	Disabled

Command Modes	
	Global configuration mode

Supported User Roles	
	network-admin network-operator vdc-admin vdc-operator

Command History	Release	Modification
	6.1(1)	This command was introduced.

Usage Guidelines	
	This command does not require a license.

Examples	
	This example shows how to configure the default VDC used for switchwide configuration to copy any local config from default VDC to a new VDC:

```
switch(config)# system admin-vdc migrate vdc2
switch(config)#
```

Related Commands	Command	Description
	<b>show vdc</b>	Displays whether the default VDC is configured for Ethernet or Admin VDC mode.

# system module type

To enter switchwide VDC mode and specify which modules can be enabled on a chassis, use the **system module type** command. To revert to the default settings and allow all modules, use the **no** form of this command.

**system module-type** *module-type*

**no system module-type** *module-type*

<b>Syntax Description</b>	<i>module-type</i>	Module type. f1—Enables f1 type modules in the chassis. f2—Enables f2 type modules in the chassis. f2e Allow f2e modules for this VDC m1—Enables m1 type modules in the chassis. m1x1—Enables m1x1 type modules in the chassis. m2x1—Enables m2x2 type modules in the chassis.
---------------------------	--------------------	--

<b>Defaults</b>	None
-----------------	------

<b>Command Modes</b>	Global configuration mode
----------------------	---------------------------

<b>Supported User Roles</b>	network-admin network-operator vdc-admin vdc-operator
-----------------------------	--

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	6.1(3)	This command was introduced.
	6.2.2	Added the F2E support.

<b>Usage Guidelines</b>	You can enable a mix of F1, F2, F2E, M1, M1XL, and M2 Series modules.
-------------------------	---



**Note**

In Cisco NX-OS Release 6.1x, an F2E module is treated as an F2 module type. For Cisco NX-OS Release 6.2(2), F2 module type is automatically upgraded to F2 F2E.

There are no restrictions on the type of mix allowed for the **system module-type** command.

The Cisco Nexus 7710 switch and Cisco Nexus 7718 switch supports only F2E module types in both an Ethernet VDC and Storage VDC.

Restrictions on the module types that can be mixed in a VDC are controlled by the **limit-resource module-type** command.

The modules that you do not enable must not be powered on after you configure this feature and enter **y** or **yes**.

An error message forces you to manually disable these modules before proceeding, which prevents major disruptions and service issues within a VDC.

This command does not require a license.

### Examples

This example shows how to control the type of modules that are allowed in this chassis: :

```
switch# configure terminal
switch(config)# system module-type f1 m1x1 f2 m2x1 fc f2e
Modules of unsupported types will not be allowed to power on after this. Continue(y/n)?
[yes]
switch(config)#
```

This example shows how to return to the default settings:

```
switch(config)# system module-type f1 m1x1 f2 m2x1 fc f2e
switch(config)#
```

### Related Commands

Command	Description
<b>show vdc</b>	Displays which modules are enabled in the chassis.

# template

To apply a virtual device context (VDC) resource template to a VDC, use the **template** command.

**template** *vdc-template-name*

<b>Syntax Description</b>	<i>vdc-template-name</i>	VDC resource template name.
---------------------------	--------------------------	-----------------------------

<b>Defaults</b>	None
-----------------	------

<b>Command Modes</b>	VDC configuration
----------------------	-------------------

<b>SupportedUserRoles</b>	network-admin
---------------------------	---------------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(1)	This command was introduced.

<b>Usage Guidelines</b>	<p>You can use this command only in the default VDC (VDC 1).</p> <p>This command does not require a license.</p>
-------------------------	--

<b>Examples</b>	<p>This example shows how to apply a resource template to a VDC:</p> <pre>switch# <b>configure terminal</b> switch(config)# <b>vdc MyDevice</b> switch(config-vdc)# <b>template MyTemplate</b></pre>
-----------------	--

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show vdc</b>	Displays VDC interface membership information.
<b>vdc</b>	Creates or specifies a VDC and enters VDC configuration mode.	

# vdc

To create or specify a virtual device context (VDC) and enter VDC configuration mode, use the **vdc** command. To delete a VDC, use the **no** form of this command.

```
vdc vdc-name [ha-policy { dual-sup { bringdown | restart | switchover } [single-sup { bringdown
| reload | restart }] | single-sup { bringdown | reload | restart } [dual-sup { bringdown | restart
| switchover }]]] [id vdc-id] [template vdc-template-name] [type storage]
```

```
no vdc vdc-name
```

Syntax	Description
<i>vdc-name</i>	VDC name.
<b>ha-policy</b>	(Optional) Specifies the high availability (HA) policy for the VDC when an unrecoverable error occurs. The default is <b>restart</b> .
<b>dual-sup</b>	Specifies the HA policy for devices with dual supervisor modules.
<b>bringdown</b>	Puts the VDC in a failed state. To recover from the failed state, you must reload the physical device.
<b>restart</b>	Deletes the VDC and recreates it using the startup configuration.
<b>switchover</b>	Initiates a supervisor module switchover.
<b>single-sup</b>	Specifies the HA policy for devices with a single supervisor module.
<b>reload</b>	Reloads the physical device and recreates the VDC using the startup configuration.
<b>id</b> <i>vdc-id</i>	(Optional) Specifies the VDC ID. The default is the first available number.
<b>template</b> <i>vdc-template-name</i>	(Optional) Specifies the VDC resource template. The default is the default VDC resource template.
<b>type</b>	(Optional) Creates VDC with a special set of services.
<b>storage</b>	(Optional) Specifies that the VDC should be used for storage only.

## Defaults

The default HA policy for the default VDC: **dual-sup** default is **switchover**  
**single-sup** default is **reload**

The default HA policy for nondefault VDCs: **dual-sup** default is **switchover**  
**single-sup** default is **restart**

The default VDC ID is first available.

The default VDC resource template is the default template.

The default switchover policy is **bringdown**.

## Command Modes

Global configuration

## Supported User Roles

network-admin

**Command History**

Release	Modification
5.2(1)	Added the <b>type</b> and <b>storage</b> keywords.
4.0(1)	This command was introduced.

**Usage Guidelines**

You can use this command only in the default VDC (VDC 1).

In the Release 5.2(1) and higher, the type storage VDC allows you to run Fibre Channel over Ethernet (FCoE) in the Cisco NX-OS Nexus 7000 Series switch. Thee VDC type storage cannot be the default VDC, and it can be only one of the VDCs. You cannot have two type storage VDCs on the device. Only FCoE VLANs can be assigned to the storage VLANs. For more information about FCoE, see *Cisco NX-OS FCoE Configuration Guide for Cisco Nexus 7000 and Cisco MDS 9500*.

When you create a VDC, the Cisco NX-OS software allocates the internal resources for the VDC. This process can take a few minutes to complete depending on the amount of internal resource you have requested for the VDC.

When you delete a VDC, the Cisco NX-OS software removes the interface configuration and moves the interfaces to the default VDC.

This command requires the Advanced Services license for creating and managing nondefault VDCs. It does not require a license for managing the default VDC.

**Examples**

This example shows how to create a VDC and enter VDC configuration mode:

```
switch# configure terminal
switch(config)# vdc MyDevice
```

Note: VDC creation is a time consuming process, please wait until the command completes  
switch(config-vdc)#

This example shows how to create a VDC with a different single supervisor module HA policy than the default and enter VDC configuration mode:

```
switch# configure terminal
switch(config)# vdc MyDevice ha-policy single-sup reload
```

Note: VDC creation is a time consuming process, please wait until the command completes  
switch(config-vdc)#

This example shows how to delete a VDC:

```
switch# configure terminal
switch(config)# no vdc MyDevice
```

Deleting this vdc will remove its config. Continue deleting this vdc? [no] **yes**

Note: VDC deletion is a time consuming process, please wait until the command completes

**Related Commands**

Command	Description
<b>show vdc</b>	Displays VDC status information.

# vdc combined-hostname

To change the command-line interface (CLI) prompt for the nondefault virtual device contexts (VDCs) to show both the default VDC name and the hostname, use the **vdc combined-hostname** command. To change the CLI prompt to show only the nondefault VDC name, use the **no** form of this command.

**vdc combined-hostname**

**no vdc combined-hostname**

**Syntax Description** This command has no arguments or keywords.

**Defaults** None

**Command Modes** Global configuration

**SupportedUserRoles** network-admin

Command History	Release	Modification
	4.2(1)	This command was introduced.

**Usage Guidelines** This command does not require a license.

**Examples** This example shows how to change the CLI prompt for the nondefault VDCs to include the hostname:

```
switch# configure terminal  
switch(config)# vdc combined-hostname
```

This example shows how to change the CLI prompt for the nondefault VDCs to not include the hostname:

```
switch# configure terminal  
switch(config)# no vdc combined-hostname
```

# vdc resource template

To create or specify a virtual device context (VDC) resource template and enter VDC resource template configuration mode, use the **vdc** command. To delete a VDC resource template, use the **no** form of this command.

**vdc resource template** *vdc-template-name*

**no vdc resource template** *vdc-template-name*

## Syntax Description

*vdc-template-name* VDC resource template name. The name has a maximum length of 32 characters and is not case-sensitive.

## Defaults

Resource	Minimum	Maximum
IPv4 multicast route map memory <sup>1</sup>	8	8
IPv6 multicast route map memory <sup>1</sup>	2	2
IPv4 unicast route map memory <sup>1</sup>	8	8
IPv6 unicast route map memory <sup>1</sup>	4	4
Port channels	0	768
SPAN sessions	0	2
VLANs	16	4094
VRFs	16	8192

1. Route map memory limits are in megabytes.

## Command Modes

Global configuration

## Supported User Roles

network-admin



Command History	Release	Modification
	4.1(2)	<ul style="list-style-type: none"> <li>The default maximum limit for the IPv4 unicast resource changed from 256 MB to 8 MB.</li> <li>The default maximum limit for the IPv4 unicast resource changed from 256 MB to 4 MB.</li> <li>Added the IPv4 and IPv6 multicast resources.</li> </ul>
	4.0(1)	This command was introduced.

### Usage Guidelines

You can use this command only in the default VDC (VDC 1).

You cannot change the default VDC resource template provided by the Cisco NX-OS software.

You can create up to 64 VDC resource templates.

This command does not require a license.

### Examples

This example shows how to create or specify a VDC resource template and enter VDC resource template configuration mode:

```
switch# configure terminal
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)#
```

This example shows how to delete a VDC resource template:

```
switch# configure terminal
switch(config)# no vdc resource template MyTemplate
```

### Related Commands

Command	Description
<code>show vdc resource template</code>	Displays VDC status information.

# vdc restart

To restart a virtual device context (VDC) that is in the failed state due to a high availability (HA) failure, use the **vdc restart** command.

```
vdc vdc-name restart
```

<b>Syntax Description</b>	<i>vdc-name</i>	VDC name.
---------------------------	-----------------	-----------

<b>Defaults</b>	None
-----------------	------

<b>Command Modes</b>	Global configuration
----------------------	----------------------

<b>SupportedUserRoles</b>	network-admin
---------------------------	---------------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.2(4)	This command was replaced by the <b>reload vdc</b> command.
4.2(1)	This command was introduced.	

<b>Usage Guidelines</b>	You can use this command only from the default VDC (VDC 1). This command requires the Advanced Services license.
-------------------------	---



### Caution

Restarting a VDC disrupts all traffic on the VDC.

<b>Examples</b>	This example shows how to restart a VDC:
-----------------	--

```
switch# configure terminal
switch(config)# vdc TestVDC restart
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>reload vdc</b>	Restarts the current VDC.
<b>show vdc</b>	Displays the information and status for all VDCs on the physical device.	

# vdc suspend

To suspend virtual device context (VDC) operation, use the **vdc suspend** command. To resume the VDC operation, use the **no** form of this command.

**vdc** *vdc-name* **suspend**

**no vdc** *vdc-name* **suspend**

Syntax Description	<i>vdc-name</i>	VDC name.
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Defaults	None
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Command Modes	Global configuration
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SupportedUserRoles	network-admin
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Command History	Release	Modification
	4.2(1)	This command was introduced.

Usage Guidelines	<p>You can use this command only from the default VDC (VDC 1).</p> <p>You can only suspend a nondefault VDC.</p> <p>This command requires the Advanced Services license.</p>
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### Caution

Suspending a VDC disrupts all traffic on the VDC.

Examples	This example shows how to suspend VDC operation:
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```
switch# configure terminal
switch(config)# vdc TestVDC suspend
```

This example shows how to resume VDC operation:

```
switch# configure terminal
switch(config)# no vdc TestVDC suspend
```

Related Commands	Command	Description
	<b>show vdc</b>	Displays the information and status for all VDCs on the physical device.

■ vdc suspend