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## **Cisco Nexus 7000 Series NX-OS Virtual Device Context Command Reference, Release 4.0**

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## Preface

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This preface describes the audience, organization, and conventions of the *Cisco Nexus 7000 Series NX-OS Virtual Device Context Command Reference, Release 4.0*. It also provides information on how to obtain related documentation.

This chapter includes the following sections:

- [Audience, page iii](#)
- [Organization, page iii](#)
- [Document Conventions, page iii](#)
- [Related Documentation, page iv](#)
- [Obtaining Documentation and Submitting a Service Request, page v](#)

## Audience

This publication is for experienced users who configure and maintain NX-OS devices.

## Organization

This reference is organized as follows:

Chapter and Title	Description
<a href="#">Chapter 1, “Cisco Nexus 7000 Series NX-OS Virtual Device Context Commands”</a>	Describes the Cisco NX-OS virtual device context commands.

## Document Conventions

Command descriptions use these conventions:

Convention	Description
<b>boldface font</b>	Commands and keywords are in boldface.
<i>italic font</i>	Arguments for which you supply values are in italics.

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[ ]	Elements in square brackets are optional.
[ x   y   z ]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Screen examples use these conventions:

screen font	Terminal sessions and information that the switch displays are in screen font.
<b>boldface screen font</b>	Information you must enter is in boldface screen font.
<i>italic screen font</i>	Arguments for which you supply values are in italic screen font.
< >	Nonprinting characters, such as passwords, are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

This document uses the following conventions:



**Note**

Means reader *take note*. Notes contain helpful suggestions or references to material not covered in the manual.



**Caution**

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.



**Tip**

Means *the following information will help you solve a problem*.

## Related Documentation

The following Cisco NX-OS documents are published on [Cisco.com](http://Cisco.com):

### Release Notes

*Cisco Nexus 7000 Series NX-OS Release Notes, Release 4.0*

### NX-OS Configuration Guides

*Cisco Nexus 7000 Series NX-OS Getting Started with Virtual Device Contexts, Release 4.0*

*Cisco Nexus 7000 Series NX-OS Fundamentals Configuration Guide, Release 4.0*

*Cisco Nexus 7000 Series NX-OS Interfaces Configuration Guide, Release 4.0*

*Cisco Nexus 7000 Series NX-OS Layer 2 Switching Configuration Guide, Release 4.0*

*Cisco Nexus 7000 Series NX-OS Quality of Service Configuration Guide, Release 4.0*

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*Cisco Nexus 7000 Series NX-OS Unicast Routing Configuration Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Multicast Routing Configuration Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Security Configuration Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Software Upgrade Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Licensing Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS High Availability and Redundancy Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS System Management Configuration Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS XML Management Interface User Guide, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS System Messages Reference*  
*Cisco Nexus 7000 Series NX-OS MIB Quick Reference*

### **NX-OS Command References**

*Cisco Nexus 7000 Series NX-OS Command Reference Master Index, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Fundamentals Command Reference, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Interfaces Command Reference, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Quality of Service Command Reference, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Unicast Routing Command Reference, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Multicast Routing Command Reference, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Security Command Reference, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS Virtual Device Context Command Reference, Release 4.0*  
*Cisco Nexus 7000 Series NX-OS System Management Command Reference, Release 4.0*

### **Other Software Document**

*Cisco Nexus 7000 Series NX-OS Troubleshooting Guide, Release 4.0*

## **Obtaining Documentation and Submitting a Service Request**

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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

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.

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

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

**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
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<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>	You can use this command only in the default VDC (VDC 1).
-------------------------	---

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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# config t
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# config t
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# config t
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# config t
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**

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

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

To copy the running configuration for all 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%
```

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## 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		
<b>dual-sup</b>		Specifies the HA policy for devices with dual supervisor modules.
<b>bringdown</b>		Puts the VDC in 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	
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	
	VDC configuration

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).
	You cannot change the HA policy for the default VDC.
	This command requires the Advanced Services license.

Examples	
	This example shows how to specify the HA policy for a VDC:

```
switch# config t
switch(config)# vdc MyDevice
switch(config-vdc)# ha-policy reset
```

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

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## 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 defaults, use the **no** form of the 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>	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# config t
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource session-monitor minimum 1 maximum 2
```

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

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

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

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

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

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

**Related Commands**

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

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## 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 defaults, use the **no** form of the command.

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

**no limit-resource monitor-session**

Syntax Description	minimum	Specifies the minimum value reserved for the VDC.
	<i>min-value</i>	Minimum number of port channels. The range is from 0 to 192.
	<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 192.
	<b>equal-to-min</b>	Maximum limit is always equal to the minimum limit.

**Defaults**  
The default minimum is 0.  
The default maximum is 192.

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

**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).  
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 limits for a VDC:

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

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

```
switch# config t
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# config t
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# config t
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.

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## limit-resource u4route-mem

To configure IPv4 route 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 defaults, use the **no** form of the command.

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

**no limit-resource u4route-mem**

### Syntax Description

<b>minimum</b>	Specifies the minimum value reserved for the VDC.
<i>min-value</i>	Minimum amount of IPv4 route memory in megabytes. The range is from 1 to 80 MB.
<b>maximum</b>	Specifies the maximum limit value as resources are available.
<i>max-value</i>	Maximum amount of IPv4 route memory in megabytes. The maximum value is 80 MB.

### Defaults

For the default VDC, the default minimum is 32 MB.  
 For the default VDC, the default maximum is 80 MB.  
 For a non-default VDC, the default minimum is 8 MB  
 For a non-default VDC, the default maximum is 80 MB.

### 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 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 route memory.



#### Note

Take care when reserving IPv4 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 routing map memory takes affect after a device reload or a stateful supervisor module switchover.

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This command does not require a license.

### Examples

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

```
switch# config t
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 route memory limits for a VDC:

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

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

```
switch# config t
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 route memory limits for a VDC resource template:

```
switch# config t
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# no limit-resource u4route-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.

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## limit-resource u6route-mem

To configure IPv6 route 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 defaults, use the **no** form of the command.

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

**no limit-resource u6route-mem**

Syntax Description	minimum	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 48 MB.
	maximum	Specifies the maximum limit value as resources are available.
	<i>max-value</i>	Maximum amount of IPv6 route memory in megabytes. The maximum value is 48 MB.

### Defaults

For the default VDC, the default minimum is 16 MB.  
 For the default VDC, the default maximum is 48 MB.  
 For a non-default VDC, the default minimum is 4 MB  
 For a non-default VDC, the default maximum is 48 MB.

### 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 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 memory. You can have approximately 11,000 routes, each with 16 next-hops, in 4 MB of IPv6 route memory.



#### Note

Take care when reserving IPv6 route 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 routing map memory takes affect after a device reload or a stateful supervisor module switchover.

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This command does not require a license.

### Examples

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

```
switch# config t
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 route memory limits for a VDC:

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

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

```
switch# config t
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 route memory limits for a VDC resource template:

```
switch# config t
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.

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## 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 defaults, use the **no** form of the command.

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

**no limit-resource vlan**

### Syntax Description

<b>minimum</b>	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>	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# config t
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource vlan minimum 32 maximum 2056
```

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

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

**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.

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## 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 defaults, use the **no** form of the 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 16 to 8192.
<b>maximum</b>	Specifies the maximum limit value as resources are available.
<i>max-value</i>	Maximum number of VRFs. The range is from 16 to 8192.
<b>equal-to-min</b>	Maximum limit is always equal to the minimum limit.

### Defaults

The default minimum is 16.  
The default maximum is 8192.

### 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 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# config t
switch(config)# vdc MyDevice
switch(config-vdc)# limit-resource vrf minimum 32 maximum 4000
```

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

```
switch# config t
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# config t
switch(config)# vdc resource template MyTemplate
switch(config-vdc-template)# limit-resource vrf minimum 64 maximum 6000
```

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

```
switch# config t
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.

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## 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.
	port-channel	(Optional) Displays the port channel resource usage.
	u4route-mem	(Optional) Displays the IPv4 route memory resource usage.
	u6route-mem	(Optional) Displays the IPv6 route memory resource usage.
	monitor-sessions	(Optional) Displays the monitor session resource usage.

**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 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

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## show running-config vdc

To display the 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

---

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.

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---

**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 8192
  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 8192
  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 8192
  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
```

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## show running-config vdc-all

To display the running configurations for all 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>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.	

**show running-config vdc-all*****Send document comments to [nexus7k-docfeedback@cisco.com](mailto:nexus7k-docfeedback@cisco.com)*****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 8192
    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 8192
    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

```

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```
limit-resource monitor-session minimum 0 maximum 2
limit-resource vrf minimum 16 maximum 8192
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
```

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```
status: 0x411a0000 - shared pss not opened
if_info_status: 0x0
version 4.0(1)
username admin password 5 $1$f89fb1AG$TK6vd.TAq0rp9Gwzc7j6y0 role network-admi
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 0xdddf68fa88ad2a5ea0818856db35fa9f
    priv 0xdddf68fa88ad2a5ea0818856db35fa9fb 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
acllog 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-admi
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 0x67568a735d6alf7e4833fd0de8c196f
    priv 0x67568a735d6alf7e4833fd0de8c196fb 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
acllog match-log-level 6
```

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## show startup-config vdc-all

To display the configuration information for all 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
```

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## show vdc

To display 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 commands displays information about all VDCs on the physical device. In non-default 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
```

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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: 00:18:ba:d8:3f:fd
vdc ha policy: RESET
vdc swover policy: RESET

vdc id: 2
vdc name: Payroll
vdc state: active
vdc mac address: 00:18:ba:d8:3f:fe
vdc ha policy: RESTART
vdc swover policy: BRINGDOWN

vdc id: 3
vdc name: MyVDC
vdc state: active
vdc mac address: 00:18:ba:d8:3f:ff
vdc ha policy: RESTART
vdc swover policy: BRINGDOWN
```

This example shows how to display summary VDC information in a non-default VDC:

```
switch-Payroll# show vdc

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 non-default VDC:

```
switch-Payroll# show vdc detail
vdc id: 2
vdc name: Payroll
vdc state: active
vdc mac address: 00:18:ba:d8:3f:fe
vdc ha policy: RESTART
vdc swover policy: BRINGDOWN
```

■ `show vdc current-vdc`

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## show vdc current-vdc

To display the current 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
```

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## show vdc membership

To display the interface membership information for the 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>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.0(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.0(1)	This command was introduced.
Release	Modification				
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.				

■ **show vdc membership**

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**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 non-default 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
...
```

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## show vdc resource

To display the 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 route 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.

## ■ show vdc resource

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**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
```

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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
```

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## show vdc resource template

To display the 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>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.0(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.0(1)	This command was introduced.
Release	Modification				
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>				

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### 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
```

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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

```

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# 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 switchback 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.

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## 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** 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#
```

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Related Commands	Command	Description
	show current vdc	Displays information about the current VDC.
	switchback	Returns to the default VDC.

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# 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>config t</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.	

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## 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 the 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]
```

```
no vdc vdc-name
```

Syntax Description		
<b>ha-policy</b>	(Optional) Specifies the high availability (HA) policy for the VDC when an unrecoverable error occurs. The default is restart.	
<b>dual-sup</b>	Specifies the HA policy for devices with dual supervisor modules.	
<b>bringdown</b>	Puts the VDC in 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.	
<b>id vdc-id</b>	(Optional) Specifies the VDC ID. The default is the first available number. The range is from 1 to 4.	
<b>template vdc-template-name</b>	(Optional) Specifies the VDC resource template.	

### 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.

### Command Modes

Global configuration

### Supported User Roles

network-admin

### Command History

Release	Modification
4.0(1)	This command was introduced.

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### Usage Guidelines

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

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# config t
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# config t
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# config t
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.

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## 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 the command.

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

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

### Syntax Description

<i>vdc-template-name</i>	Specifies the VDC resource template name. The name has a maximum length of 32 characters and is not case-sensitive.
--------------------------	---

### Defaults

Resource	Minimum	Maximum
IPv4 route memory <sup>1</sup>	8	256
IPv6 route memory <sup>1</sup>	4	256
Port channels	0	256
SPAN sessions	0	2
VLANs	16	4094
VRFs	16	8192

1. Route memory limits are in megabytes.

### Command Modes

Global configuration

### 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).

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.

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---

**Examples**

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

```
switch# config t  
switch(config)# vdc resource template MyTemplate  
switch(config-vdc-template)#
```

This example shows how to delete a VDC resource template:

```
switch# config t  
switch(config)# no vdc resource template MyTemplate
```

---

**Related Commands**

---

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

---