

- *Example: Configuring an EX4200 Virtual Chassis Interconnected Across Multiple Wiring Closets*
- *Configuring an EX4200, EX4500, or EX4550 Virtual Chassis (CLI Procedure)*

preprovisioned

Syntax	preprovisioned;
Hierarchy Level	[edit virtual-chassis]
Release Information	<p>Statement introduced in Junos OS Release 9.0 for EX Series switches.</p> <p>Statement introduced in Junos OS Release 13.2X50-D15 for the QFX Series.</p> <p>Statement introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).</p>
Description	<p>Enable the preprovisioned configuration mode for a Virtual Chassis or Virtual Chassis Fabric (VCF) configuration.</p> <p>When the preprovisioned configuration mode is enabled, you cannot use the CLI or the J-Web interface to change the mastership priority or member ID of member switches.</p> <p>You must use this statement to configure an EX8200 Virtual Chassis. Nonprovisioned configuration of an EX8200 Virtual Chassis is not supported.</p>
Required Privilege Level	<p>system—To view this statement in the configuration.</p> <p>system-control—To add this statement to the configuration.</p>
Related Documentation	<ul style="list-style-type: none"> • <i>Preprovisioning a Virtual Chassis Fabric</i> • <i>Example: Configuring an EX4200 Virtual Chassis Using a Preprovisioned Configuration File</i> • <i>Example: Setting Up a Full Mesh EX8200 Virtual Chassis with Two EX8200 Switches and Redundant XRE200 External Routing Engines</i> • <i>Configuring an EX4200, EX4500, or EX4550 Virtual Chassis (CLI Procedure)</i> • <i>Configuring an EX8200 Virtual Chassis (CLI Procedure)</i> • <i>Configuring an EX9200 Virtual Chassis</i> • <i>Configuring a QFX Series Virtual Chassis (CLI Procedure)</i> • Replacing a Member Switch of a Virtual Chassis Configuration (CLI Procedure) on page 39

role

Syntax	<code>role (line-card routing-engine);</code>
Hierarchy Level	[edit virtual-chassis preprovisioned member <i>member-id</i>]
Release Information	Statement introduced in Junos OS Release 9.0 for EX Series switches. Statement introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Statement introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Specify the roles of the members of the Virtual Chassis or a Virtual Chassis Fabric (VCF) in a preprovisioned Virtual Chassis.

Virtual Chassis Fabric

Specify the role to be performed by each switch. In a VCF, two spine devices are configured into the Routing Engine role and the remaining spine devices and all leaf devices are configured into the line card role. The role must be associated with the member's serial number.

EX Series (except EX8200 Virtual Chassis) and QFX Series Virtual Chassis

Specify the role to be performed by each member switch. Associate the role with the member's serial number.

When you use a preprovisioned configuration, you cannot modify the mastership priority or member ID of member switches through the user interfaces. The mastership priority value is generated by the software, based on the assigned role:

- A member configured as **routing-engine** is assigned the mastership priority **129**.
- A member configured as **line-card** is assigned the mastership priority **0**.
- A member listed in the preprovisioned configuration without an explicitly specified role is assigned the mastership priority **128**.

The configured role specifications are permanent. If both **routing-engine** members fail, a **line-card** member cannot take over as master of the Virtual Chassis configuration. You must delete the preprovisioned configuration to change the specified roles in a Virtual Chassis.

Explicitly configure two members as **routing-engine** and configure additional switches as members of the preprovisioned Virtual Chassis by specifying only their serial numbers. If you do not explicitly configure the role of the additional members, they function in a linecard role by default. In that case, a member that is functioning in a linecard role can take over mastership if the members functioning as master and backup (**routing-engine** role) both fail.

EX8200 Virtual Chassis

Specify the role to be performed by each XRE200 External Routing Engine and each EX8200 member switch. Associate the role with the member's serial number. An EX8200

Virtual Chassis cannot function when both external Routing Engines, which must be configured in the **routing-engine** role, have failed.

- Options**
- **line-card**—Enables the member to be eligible to function only in the linecard role. Any member of the Virtual Chassis or VCF configuration other than the master or backup functions in the linecard role and runs only a subset of Junos OS for EX Series switches. A member functioning in the linecard role does not run the control protocols or the chassis management processes.

A Virtual Chassis must have at least three members for one member to function in the linecard role.

In an EX8200 Virtual Chassis configuration, all member switches must be in the linecard role.

- **routing-engine**—Enables the member to function as a master or backup of the Virtual Chassis or VCF configuration. The master manages all members and runs the chassis management processes and control protocols. The backup synchronizes with the master in terms of protocol states, forwarding tables, and so forth, so that it is prepared to preserve routing information and maintain network connectivity without disruption in case the master is unavailable.

(All Virtual Chassis composed of EX Series switches, except EX8200 switches, or QFX Series devices) Specify two and only two members as **routing-engine**. The software determines which of the two members assigned the **routing-engine** role functions as master, based on the master election algorithm. See [“Understanding How the Master in a Virtual Chassis Is Elected” on page 17](#). In these Virtual Chassis, the **routing-engine** role is associated with a switch.

(EX8200 Virtual Chassis) All XRE200 External Routing Engines must be in the **routing-engine** role.

Required Privilege Level	system—To view this statement in the configuration.
	system-control—To add this statement to the configuration.

**Related
Documentation**

- *Autoprovisioning a Virtual Chassis Fabric*
- *Preprovisioning a Virtual Chassis Fabric*
- *Example: Configuring an EX4200 Virtual Chassis Using a Preprovisioned Configuration File*
- *Example: Setting Up a Full Mesh EX8200 Virtual Chassis with Two EX8200 Switches and Redundant XRE200 External Routing Engines*
- *Configuring an EX3300 Virtual Chassis (CLI Procedure)*
- *Configuring an EX4200, EX4500, or EX4550 Virtual Chassis (CLI Procedure)*
- *Configuring an EX8200 Virtual Chassis (CLI Procedure)*
- *Configuring an EX9200 Virtual Chassis*
- *Configuring a QFX Series Virtual Chassis (CLI Procedure)*
- *Configuring a Virtual Chassis on an EX Series Switch (J-Web Procedure)*
- *Adding a New EX4200 Switch to an Existing EX4200 Virtual Chassis (CLI Procedure)*
- [Replacing a Member Switch of a Virtual Chassis Configuration \(CLI Procedure\) on page 39](#)

serial-number

Syntax	<code>serial-number serial-number;</code>
Hierarchy Level	[edit virtual-chassis preprovisioned member member-id]
Release Information	Statement introduced in Junos OS Release 9.0 for EX Series switches. Statement introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Statement introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	<p>In a preprovisioned Virtual Chassis or Virtual Chassis Fabric (VCF), specify the serial number of each member switch to be included in the configuration. If you do not include the serial number within the configuration, the switch cannot be recognized as a member of a preprovisioned configuration.</p> <p>In an EX8200 Virtual Chassis configuration, specify the serial number of each XRE200 External Routing Engine and each EX8200 member switch to be included in the Virtual Chassis configuration. If you do not include the serial number within the Virtual Chassis configuration, the external Routing Engine or switch cannot be recognized as a member of the configuration.</p>
Options	<i>serial-number</i> —Permanent serial number for the external Routing Engine or for the member switch.
Required Privilege Level	system—To view this statement in the configuration. system-control—To add this statement to the configuration.
Related Documentation	<ul style="list-style-type: none"> • <i>Autoprovisioning a Virtual Chassis Fabric</i> • <i>Preprovisioning a Virtual Chassis Fabric</i> • <i>Configuring an EX2200 Virtual Chassis (CLI Procedure)</i> • <i>Configuring an EX3300 Virtual Chassis (CLI Procedure)</i> • <i>Configuring an EX4300 Virtual Chassis (CLI Procedure)</i> • <i>Configuring an EX4200, EX4500, or EX4550 Virtual Chassis (CLI Procedure)</i> • <i>Configuring an EX8200 Virtual Chassis (CLI Procedure)</i> • <i>Configuring an EX9200 Virtual Chassis</i> • <i>Configuring a QFX Series Virtual Chassis (CLI Procedure)</i> • <i>Configuring a Virtual Chassis on an EX Series Switch (J-Web Procedure)</i>

serial-number (Virtual Chassis aliases)

Syntax	<code>serial-number <i>serial-number</i> { <i>alias-name</i> <i>alias-name</i>; }</code>
Hierarchy Level	[edit virtual-chassis aliases]
Release Information	Statement introduced in Junos OS Release 14.1X53-D10 for EX Series and QFX Series Virtual Chassis and Virtual Chassis Fabric (VCF).
Description	<p>Specify the serial number that will be labeled with an alias in a Virtual Chassis or Virtual Chassis Fabric (VCF).</p> <p>The remaining statements are explained separately.</p>
Options	<p><i>serial-number</i>—Permanent serial number for the member switch in the Virtual Chassis or VCF.</p> <p>You can retrieve the serial number for any device in your Virtual Chassis or VCF by entering the show virtual-chassis command and reviewing the output in the Serial No field.</p>
Required Privilege Level	<p>system—To view this statement in the configuration.</p> <p>system-control—To add this statement to the configuration.</p>
Related Documentation	<ul style="list-style-type: none">• <i>Autoprovisioning a Virtual Chassis Fabric</i>• <i>Preprovisioning a Virtual Chassis Fabric</i>• <i>Configuring a QFX Series Virtual Chassis (CLI Procedure)</i>• <i>Understanding Virtual Chassis Fabric Components</i>• <i>Understanding QFX Series Virtual Chassis Components</i>

tracoptions (Virtual Chassis)

Syntax `tracoptions {
 file filename <files number> <no-stamp> <replace> <size size> <world-readable |
 no-world-readable>;
 flag flag <detail> <disable> <receive> <send>;
 }`

Hierarchy Level [edit [virtual-chassis](#)]

Release Information Statement introduced in Junos OS Release 9.0 for EX Series switches.
 Option **detail** added in Junos OS Release 9.2 for EX Series switches.
 Statement introduced in Junos OS Release 13.2X50-D15 for the QFX Series.
 Statement introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).

Description Define tracing operations for the Virtual Chassis or VCF.

Each Virtual Chassis or VCF member is updated with configured tracing options, and the log file is stored locally on each device.



NOTE: In a large-scale VCF, use system logging and tracing with discretion, and only for troubleshooting. These operations place an extra load on the master Routing Engine device, which can impact VCF convergence time and stability. All tracing options should be disabled during normal VCF operation. To troubleshoot particular problems, selectively enable tracing options, and disable them again after collecting the desired information.

Default Tracing operations are disabled.

Options **detail**—(Optional) Generate detailed trace information for a flag.



NOTE: Enable tracing at the detail level only while troubleshooting a particular issue, and disable it again for normal system operation.

disable—(Optional) Disable a flag.

file *filename*—Name of the file to receive the output of the tracing operation. Enclose the name within quotation marks. All files are placed in the directory `/var/log`.

files *number*—(Optional) Maximum number of trace files. When a trace file named ***trace-file*** reaches its maximum size, it is renamed ***trace-file.0***, then ***trace-file.1***, and so on, until the maximum number of trace files is reached. Then the oldest trace file is overwritten. If you specify a maximum number of files, you also must specify a maximum file size with the **size** option.

Range: 2 through 1000

Default: 3 files

flag flag—Tracing operation to perform. To specify more than one tracing operation, include multiple flag statements. You can include the following flags:

- **all**—All tracing operations.



TIP: The **all** flag displays a subset of logs that are generally useful in debugging issues, and for more detailed information, you can use options **all detail**. However, to avoid significantly impacting VCF stability, use this high level of tracing only for troubleshooting for a short period of time, and not during normal VCF operation.

- **auto-configuration**—Trace Virtual Chassis ports (VCPs) that have been automatically configured.
- **csn**—Trace Virtual Chassis complete sequence number (CSN) packets.
- **error**—Trace Virtual Chassis errored packets.
- **hello**—Trace Virtual Chassis hello packets.
- **krt**—Trace Virtual Chassis KRT events.
- **lsp**—Trace Virtual Chassis link-state packets.
- **lsp-generation**—Trace Virtual Chassis link-state packet generation.
- **me**—Trace Virtual Chassis ME events.
- **normal**—Trace normal events.
- **packets**—Trace Virtual Chassis packets.
- **parse**—Trace reading of the configuration.
- **psn**—Trace partial sequence number (PSN) packets.
- **route**—Trace Virtual Chassis routing information.
- **spf**—Trace Virtual Chassis SPF events.
- **state**—Trace Virtual Chassis state transitions.
- **task**—Trace Virtual Chassis task operations.

no-stamp—(Optional) Do not place a timestamp on any trace file.

no-world-readable—(Optional) Restrict file access to the user who created the file.

receive—(Optional) Trace received packets.

replace—(Optional) Replace a trace file rather than appending information to it.

send—(Optional) Trace transmitted packets.

size size—(Optional) Maximum size of each trace file, in kilobytes (KB), megabytes (MB), or gigabytes (GB). When a trace file named **trace-file** reaches its maximum size, it is renamed **trace-file.0**, then **trace-file.1**, and so on, until the maximum number of trace files is reached. Then the oldest trace file is overwritten. If you specify a maximum number of files, you also must specify a maximum file size with the **files** option.

Syntax: *xk* to specify KB, *xm* to specify MB, or *xg* to specify GB

Range: 10 KB through 1 GB


Default: 128 KB

world-readable—(Optional) Enable unrestricted file access.

Required Privilege Level	system—To view this statement in the configuration. system-control—To add this statement to the configuration.
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Related Documentation	<ul style="list-style-type: none">• Monitoring the Virtual Chassis Status and Statistics on EX Series Virtual Chassis on page 58• Verifying the Member ID, Role, and Neighbor Member Connections of a Virtual Chassis Member on page 55• Verifying That Virtual Chassis Ports Are Operational on page 56• Verifying Virtual Chassis Ports in an EX8200 Virtual Chassis• Troubleshooting an EX Series Virtual Chassis on page 61• Troubleshooting Virtual Chassis Fabric
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vcp-no-hold-time

Syntax	vcp-no-hold-time;
Hierarchy Level	[edit virtual-chassis]
Release Information	Statement introduced in Junos OS Release 13.2X50-D10 for EX Series switches. Statement introduced in Junos OS Release 13.2X50-D15 for the QFX Series.
Description	<p>Disable the Virtual Chassis port (VCP) holddown timer for all VCPs in the Virtual Chassis or Virtual Chassis Fabric (VCF).</p> <p>The VCP holddown timer is an internal mechanism that delays a Virtual Chassis reconvergence for several seconds when a VCP becomes inactive. The purpose of this delay is to provide the VCP time to return online without having to reconverge the Virtual Chassis to adjust to the inactive VCP. All traffic to the VCP is dropped while the VCP is inactive. If the VCP remains down for a time that exceeds the VCP holddown timer, a Virtual Chassis reconvergence occurs.</p> <p>When this statement is enabled, the VCP holddown timer is disabled and the Virtual Chassis reconvergence occurs when a VCP becomes inactive. The period of time where traffic is dropped waiting for the VCP to return online is avoided.</p> <p>We recommend enabling this statement after a Virtual Chassis is operational. We recommend disabling this statement when you are adding or removing member switches from your Virtual Chassis.</p> <p>The VCP holddown timer cannot be viewed and is not user-configurable. You can only control whether the VCP holddown timer is enabled or disabled by configuring this statement.</p> <div> NOTE: For the EX4300 Virtual Chassis, you should enable the <code>vcp-no-hold-time</code> statement before performing a software upgrade using NSSU. If you do not enable the <code>vcp-no-hold-time</code> statement, the Virtual Chassis may split during the upgrade. A split Virtual Chassis can cause disruptions to your network, and you may have to manually reconfigure your Virtual Chassis after the NSSU if the split and merge feature was disabled. For more information about a split Virtual Chassis, see “Understanding Split and Merge in a Virtual Chassis” on page 24</div>
Default	The VCP holddown timer is enabled by default on all devices that support this statement.
Required Privilege Level	system—To view this statement in the configuration. system-control—To add this statement to the configuration.
Related Documentation	<ul style="list-style-type: none">• Understanding EX4300 Virtual Chassis• Understanding QFX Series Virtual Chassis

- [Understanding EX Series Virtual Chassis Components on page 5](#)
- *Understanding QFX Series Virtual Chassis Components*

vcp-snmp-statistics

Syntax	vcp-snmp-statistics;
Hierarchy Level	[edit virtual-chassis]
Release Information	Statement introduced in Junos OS Release 15.1 for EX Series switches. Statement introduced in Junos OS Release 15.1 for the QFX Series.
Description	<p>Enable SNMP monitoring of the Virtual Chassis ports (VCPs) for all VCPs in the Virtual Chassis or Virtual Chassis Fabric (VCF).</p> <p>When this statement is enabled, SNMP gathers statistics on the Junos VCP MIBs. You can retrieve the statistics gathered by SNMP for these MIBs by using the show snmp mib command with the walk and ascii options and specifying jnxVirtualChassisPortInPkts.</p>
Default	SNMP is disabled by default on devices running Junos OS.
Required Privilege Level	<p>system—To view this statement in the configuration.</p> <p>system-control—To add this statement to the configuration.</p>
Related Documentation	<ul style="list-style-type: none"> • <i>Understanding EX4300 Virtual Chassis</i> • <i>Understanding QFX Series Virtual Chassis</i> • Understanding EX Series Virtual Chassis Components on page 5 • <i>Understanding QFX Series Virtual Chassis Components</i>

virtual-chassis

```
Syntax virtual-chassis {
    aliases {
        serial-number serial-number {
            alias-name alias-name;
        }
    }
    auto-provisioned;
    auto-sw-update {
        (ex-4200 | ex-4300 | ex-4500 | ex-4600 | qfx-3 | qfx-5)
        package-name package-name;
    }
    fast-failover (ge | vcp disable | xe);
    graceful-restart {
        disable;
    }
    id id;
    mac-persistence-timer seconds;
    member member-id {
        fabric-tree-root;
        location location;
        mastership-priority number;
        no-management-vlan;
        serial-number;
        role;
    }
    no-split-detection;
    preprovisioned;
    traceoptions (Virtual Chassis) {
        file filename <files number> <size size> <world-readable | no-world-readable> <match
            regex>;
        flag flag ;
    }
    vc-port {
        lag-hash (packet-based | source-port-based);
    }
    vcp-no-hold-time;
    vcp-snmp-statistics;
}
```

Hierarchy Level [edit]

Release Information Statement introduced in Junos OS Release 9.0 for EX Series switches.
Statement introduced in Junos OS Release 13.2X50-D15 for the QFX Series.
Statement introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).

Description Configure a Virtual Chassis or a Virtual Chassis Fabric (VCF).

The remaining statements are explained separately.

Default A standalone EX Series switch is a Virtual Chassis by default. It has a default member ID of 0, a default mastership priority of 128, and a default role as master.

A QFX Series device configured in standalone mode is a Virtual Chassis by default. It has a default member ID of 0, a default mastership priority of 128, and a default role as master.

A standalone XRE200 External Routing Engine or EX8200 switch is not part of an EX8200 Virtual Chassis until a Virtual Chassis configuration is set up.

Required Privilege Level	system—To view this statement in the configuration. system-control—To add this statement to the configuration.
Related Documentation	<ul style="list-style-type: none">• <i>Autoprovisioning a Virtual Chassis Fabric</i>• <i>Preprovisioning a Virtual Chassis Fabric</i>• <i>Adding a Device to a Virtual Chassis Fabric</i>• <i>Configuring a QFX Series Virtual Chassis (CLI Procedure)</i>• <i>Example: Configuring an EX3300 Virtual Chassis with a Master and Backup</i>• <i>Example: Configuring an EX4200 Virtual Chassis with a Master and Backup in a Single Wiring Closet</i>• <i>Example: Setting Up a Full Mesh EX8200 Virtual Chassis with Two EX8200 Switches and Redundant XRE200 External Routing Engines</i>• <i>Configuring an EX3300 Virtual Chassis (CLI Procedure)</i>• <i>Configuring an EX4200, EX4500, or EX4550 Virtual Chassis (CLI Procedure)</i>• <i>Configuring an EX8200 Virtual Chassis (CLI Procedure)</i>• <i>Configuring an EX9200 Virtual Chassis</i>

CHAPTER 3

Operational Commands for Virtual Chassis

- `clear virtual-chassis vc-port statistics`
- `request session member`
- `request virtual-chassis recycle`
- `request virtual-chassis renumber`
- `request virtual-chassis vc-port`
- `show snmp mib`
- `show virtual-chassis active-topology`
- `show virtual-chassis device-topology`
- `show virtual-chassis protocol adjacency`
- `show virtual-chassis protocol database`
- `show virtual-chassis protocol interface`
- `show virtual-chassis protocol route`
- `show virtual-chassis protocol statistics`
- `show virtual-chassis login`
- `show virtual-chassis`
- `show virtual-chassis vc-path`
- `show virtual-chassis vc-port`
- `show virtual-chassis vc-port statistics`

clear virtual-chassis vc-port statistics

Syntax	<code>clear virtual-chassis vc-port statistics</code> <code><all-members></code> <code><interface-name></code> <code><local></code> <code><member member-id></code>
Release Information	Command introduced in Junos OS Release 9.0 for EX Series switches. The options all-members and local were added in Junos OS Release 9.3 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric.
Description	Clear—reset to zero (0)—the traffic statistics counters on Virtual Chassis ports (VCPs).
Options	none —Clear traffic statistics for VCPs of all members of a Virtual Chassis or VCF. all-members —(Optional) Clear traffic statistics for VCPs of all members of a Virtual Chassis or VCF. interface-name —(Optional) Clear traffic statistics for the specified VCP. local —(Optional) Clear traffic statistics for VCPs from the switch or external Routing Engine on which this command is entered. member member-id —(Optional) Clear traffic statistics for VCPs from the specified member of a Virtual Chassis or VCF.
Required Privilege Level	clear
Related Documentation	<ul style="list-style-type: none">• show virtual-chassis vc-port statistics on page 146• show virtual-chassis vc-port on page 142• Monitoring the Virtual Chassis Status and Statistics on EX Series Virtual Chassis on page 58
List of Sample Output	clear virtual-chassis vc-port statistics (EX4200 Virtual Chassis) on page 96 clear virtual-chassis vc-port statistics (EX8200 Virtual Chassis) on page 97 clear virtual-chassis vc-port statistics member 3 on page 97

Sample Output

clear virtual-chassis vc-port statistics (EX4200 Virtual Chassis)

```
user@switch> clear virtual-chassis vc-port statistics
fpc0:
-----
Statistics cleared
```

clear virtual-chassis vc-port statistics (EX8200 Virtual Chassis)

```
user@external-routing-engine> clear virtual-chassis vc-port statistics
```

```
member0:
```

```
-----  
Statistics cleared
```

```
member1:
```

```
-----  
Statistics cleared
```

```
member8:
```

```
-----  
Statistics cleared
```

```
member9:
```

```
-----  
Statistics cleared
```

clear virtual-chassis vc-port statistics member 3


```
user@switch> clear virtual-chassis vc-port statistics member 3
```

```
Cleared statistics on member 3
```

request session member

Syntax	<code>request session member <i>member-id</i></code>
Release Information	Command introduced in Junos OS Release 9.0 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Start a session with the specified member of a Virtual Chassis or a VCF.
Options	<i>member-id</i> —Member ID for the specific member of the Virtual Chassis or VCF.
Required Privilege Level	maintenance
Related Documentation	<ul style="list-style-type: none">• member on page 77• Understanding EX Series Virtual Chassis Components on page 5• Understanding QFX Series Virtual Chassis Components

request virtual-chassis recycle

Syntax	<code>request virtual-chassis recycle member-id <i>member-id</i></code>
Release Information	Command introduced in Junos OS Release 9.0 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series.
Description	<p>Make a previously used member ID available for reassignment.</p> <p>When you remove a member switch from the Virtual Chassis configuration, the master reserves that member ID. To make the member ID available for reassignment, you must use this command.</p>
	<div>  <p>NOTE: You must run this command from the Virtual Chassis member in the master role.</p> </div>
Options	<code>member-id <i>member-id</i></code> —Specify the member ID that you want to make available for reassignment to a different member.
Required Privilege Level	system-control
Related Documentation	<ul style="list-style-type: none"> • request virtual-chassis renumber on page 100 • Replacing a Member Switch of a Virtual Chassis Configuration (CLI Procedure) on page 39 • Adding or Replacing a Member Switch or an External Routing Engine in an EX8200 Virtual Chassis (CLI Procedure)
List of Sample Output	request virtual-chassis recycle member-id 3 on page 99 request virtual-chassis recycle member-id 1 on page 99

Sample Output

`request virtual-chassis recycle member-id 3`


```
user@switch> request virtual-chassis recycle member-id 3
```

Sample Output

`request virtual-chassis recycle member-id 1`

```
user@external-routing-engine> request virtual-chassis recycle member-id 1
```

request virtual-chassis renumber

Syntax	<code>request virtual-chassis renumber member-id <i>old-member-id</i> new-member-id <i>new-member-id</i></code>
Release Information	Command introduced in Junos OS Release 9.0 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series.
Description	Renumber a member of a Virtual Chassis configuration.
<div> NOTE: You must run this command from the Virtual Chassis member in the master role.</div>	
Options	<code>member-id <i>old-member-id</i></code> —Specify the ID of the member that you wish to renumber. <code>new-member-id <i>new-member-id</i></code> —Specify an unassigned member ID.
Required Privilege Level	system-control
Related Documentation	<ul style="list-style-type: none">• request virtual-chassis recycle on page 99• Replacing a Member Switch of a Virtual Chassis Configuration (CLI Procedure) on page 39• Adding or Replacing a Member Switch or an External Routing Engine in an EX8200 Virtual Chassis (CLI Procedure)
List of Sample Output	request virtual-chassis renumber member-id 5 new-member-id 4 on page 100 request virtual-chassis renumber member-id 1 new-member-id 0 on page 100

Sample Output

`request virtual-chassis renumber member-id 5 new-member-id 4`

```
user@switch> request virtual-chassis renumber member-id 5 new-member-id 4
```

`request virtual-chassis renumber member-id 1 new-member-id 0`

```
user@external-routing-engine> request virtual-chassis renumber member-id 1 new-member-id 0
```

request virtual-chassis vc-port

Syntax	request virtual-chassis vc-port [set delete] < fpc-slot <i>fpc-slot</i> > pic-slot <i>pic-slot</i> port <i>port-number</i> < member <i>member-id</i> >
Release Information	<p>Command introduced in Junos OS Release 9.0 for EX Series switches.</p> <p>Option fpc-slot introduced in Junos OS Release 10.4 for EX Series switches.</p> <p>Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series.</p> <p>Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).</p>
Description	<p>Enable or disable a port as a Virtual Chassis port (VCP).</p> <p>If you omit member <i>member-id</i>, this command defaults to enabling or disabling the uplink VCP or SFP network port configured as a VCP on the switch where the command is issued.</p> <p>On an EX3300 switch, uplink ports 2 and 3 are configured as VCPs by default. No other uplink ports on any other EX Series switches are configured as VCPs by default.</p> <p>You might experience a temporary traffic disruption immediately after creating or deleting a user-configured VCP in an EX8200 Virtual Chassis.</p>
Options	<p>set—Set a network port into a VCP to convert a network port into a VCP.</p> <p>delete—Delete the VCP setting on a port to convert a VCP into a network port.</p> <p>pic-slot <i>pic-slot</i>—Number of the PIC slot for the port on the switch.</p> <p>port <i>port-number</i>—Number of the port that is to be enabled or disabled as a VCP.</p> <p>member <i>member-id</i>—(Optional) Enable or disable the specified VCP on the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	system-control
Related Documentation	<ul style="list-style-type: none"> • request virtual-chassis vc-port (dedicated port) • show virtual-chassis vc-port on page 142 • show virtual-chassis vc-port statistics on page 146 • clear virtual-chassis vc-port statistics on page 96 • Virtual Chassis Port (VCP) Interface Names in an EX8200 Virtual Chassis • Understanding EX Series Virtual Chassis Components on page 5 • Understanding QFX Series Virtual Chassis Components
List of Sample Output	<p>request virtual-chassis vc-port set pic-slot 1 port 0 on page 102</p> <p>request virtual-chassis vc-port set pic-slot 1 port 1 member 3 on page 102</p> <p>request virtual-chassis vc-port delete pic-slot 1 port 1 member 3 on page 102</p>

Sample Output

`request virtual-chassis vc-port set pic-slot 1 port 0`

```
user@switch> request virtual-chassis vc-port set pic-slot 1 port 0
```

To check the results of this command, use the [show virtual-chassis vc-port](#) command.

`request virtual-chassis vc-port set pic-slot 1 port 1 member 3`

```
user@switch> request virtual-chassis vc-port set pic-slot 1 port 1 member 3
```

To check the results of this command, use the [show virtual-chassis vc-port](#) command.

`request virtual-chassis vc-port delete pic-slot 1 port 1 member 3`

```
user@switch> request virtual-chassis vc-port delete pic-slot 1 port 1 member 3
```

To check the results of this command, use the [show virtual-chassis vc-port](#) command.

show snmp mib

Syntax	<code>show snmp mib (get get-next walk) (ascii decimal) <i>object-id</i></code>
Release Information	<p>Command introduced before Junos OS Release 7.4.</p> <p>Command introduced in Junos OS Release 9.0 for EX Series switches.</p> <p>ascii and decimal options introduced in Junos OS Release 9.6.</p> <p>ascii and decimal options introduced in Junos OS Release 9.6 for EX Series switches.</p> <p>Command introduced in Junos OS Release 11.1 for the QFX Series.</p> <p>Command introduced in Junos OS Release 14.1X53-D20 for the OCX Series.</p>
Description	Display local Simple Network Management Protocol (SNMP) Management Information Base (MIB) object values.
Options	<p>get—Retrieve and display one or more SNMP object values.</p> <p>get-next—Retrieve and display the next SNMP object values.</p> <p>walk—Retrieve and display the SNMP object values that are associated with the requested object identifier (OID). When you use this option, the Junos OS displays the objects below the subtree that you specify.</p> <p>ascii—Display the SNMP object's string indices as an ASCII-key representation.</p> <p>decimal—Display the SNMP object values in the decimal (default) format. The decimal option is the default option for this command. Therefore, issuing the show snmp mib (get get-next walk) decimal object-id and the show snmp mib (get get-next walk) object-id commands display the same output.</p> <p>object-id—The object can be represented by a sequence of dotted integers (such as 1.3.6.1.2.1.2) or by its subtree name (such as interfaces). When entering multiple objects, enclose the objects in quotation marks.</p>
Required Privilege Level	snmp—To view this statement in the configuration.
List of Sample Output	<p>show snmp mib get on page 104</p> <p>show snmp mib get (Multiple Objects) on page 104</p> <p>show snmp mib get (Layer 2 Policer) on page 104</p> <p>show snmp mib get-next on page 104</p> <p>show snmp mib get-next (Specify an OID) on page 104</p> <p>show snmp mib walk on page 104</p> <p>show snmp mib walk (QFX Series) on page 104</p> <p>show snmp mib walk decimal on page 105</p> <p>show snmp mib walk (ASCII) on page 105</p> <p>show snmp mib walk (Multiple Indices) on page 105</p> <p>show snmp mib walk decimal (Multiple Indices) on page 105</p>
Output Fields	Table 10 on page 104 describes the output fields for the show snmp mib command. Output fields are listed in the approximate order in which they appear.

Table 10: show snmp mib Output Fields

Field Name	Field Description
<i>name</i>	Object name and numeric instance value.
<i>object value</i>	Object value. The Junos OS translates OIDs into the corresponding object names.

Sample Output

show snmp mib get

```
user@host> show snmp mib get sysObjectID.0
sysObjectID.0 = jnxProductNameM20
```

show snmp mib get (Multiple Objects)

```
user@host> show snmp mib get ?sysObjectID.0 sysUpTime.0?
sysObjectID.0 = jnxProductNameM20
sysUpTime.0 = 1640992
```

show snmp mib get (Layer 2 Policer)

```
user@host> show snmp mib get ifInOctets.25970
ifInOctets.25970 = 7545720
```

show snmp mib get-next

```
user@host> show snmp mib get-next jnxMibs
jnxBoxClass.0 = jnxProductLineM20.0
```

show snmp mib get-next (Specify an OID)

```
user@host> show snmp mib get-next 1.3.6.1
sysDescr.0 = Juniper Networks, Inc. m20 internet router, kernel
Junos OS Release: 2004-1 Build date: build date UTC Copyright (c) 1996-2004 Juniper
Networks, Inc.
```

show snmp mib walk

```
user@host> show snmp mib walk system
sysDescr.0 = Juniper Networks, Inc. m20 internet router, kernel
Junos OS Release #0: 2004-1 Build date: build date UTC Copyright (c) 1996-2004
Juniper Networks, Inc.
sysObjectID.0 = jnxProductNameM20
sysUpTime.0 = 1640992
sysContact.0 = Your contact
sysName.0 = my router
sysLocation.0 = building 1
sysServices.0 = 4
```

show snmp mib walk (QFX Series)

```
user@switch> show snmp mib walk system
sysDescr.0 = Juniper Networks, Inc. qfx3500s internet router, kernel JUNOS
11.1-20100926.0 #0: 2010-09-26 06:17:38 UTC Build date: 2010-09-26 06:00:10
sysObjectID.0 = jnxProductQFX3500
sysUpTime.0 = 138980301
sysContact.0 = System Contact
```

```
sysName.0      = LabQFX3500
sysLocation.0 = Lab
sysServices.0 = 4
```

show snmp mib walk decimal

```
user@host show snmp mib walk decimal jnxUtilData
jnxUtilCounter32Value.102.114.101.100 = 100
```

show snmp mib walk (ASCII)

```
show snmp mib walk ascii jnxUtilData
jnxUtilCounter32Value."fred" = 100
```

show snmp mib walk (Multiple Indices)

```
show snmp mib walk ascii jnxFWCounterByteCount
jnxFWCounterByteCount."fe-1/3/0.0-i"."CLASS_BE-fe-1/3/0.0-i".2 = 0
jnxFWCounterByteCount."fe-1/3/0.0-i"."CLASS_CC-fe-1/3/0.0-i".2 = 0
jnxFWCounterByteCount."fe-1/3/0.0-i"."CLASS_RT-fe-1/3/0.0-i".2 = 0
.....
```

show snmp mib walk decimal (Multiple Indices)

```
show snmp mib walk ascii jnxFWCounterByteCount
jnxFWCounterByteCount."fe-1/3/0.0-i"."CLASS_BE-fe-1/3/0.0-i".2 = 0
jnxFWCounterByteCount."fe-1/3/0.0-i"."CLASS_CC-fe-1/3/0.0-i".2 = 0
jnxFWCounterByteCount."fe-1/3/0.0-i"."CLASS_RT-fe-1/3/0.0-i".2 = 0
.....
```

show virtual-chassis active-topology

Syntax	show virtual-chassis active-topology <all-members> <local> <member <i>member-id</i> >
Release Information	Command introduced in Junos OS Release 9.0 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Display the active topology of the Virtual Chassis or VCF with next-hop reachability information.
Options	<p>none—Display the active topology of the member switch where the command is issued.</p> <p>all-members—(Optional) Display the active topology of all members of the Virtual Chassis or VCF.</p> <p>local—(Optional) Display the active topology of the switch or external Routing Engine on which this command is entered.</p> <p>member <i>member-id</i>—(Optional) Display the active topology of the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	view
Related Documentation	<ul style="list-style-type: none"> • Monitoring the Virtual Chassis Status and Statistics on EX Series Virtual Chassis on page 58 • Understanding EX Series Virtual Chassis Configuration
List of Sample Output	show virtual-chassis active-topology (EX4200 Virtual Chassis) on page 107 show virtual-chassis active-topology (EX8200 Virtual Chassis) on page 107 show virtual-chassis active-topology (Virtual Chassis Fabric) on page 108
Output Fields	Table 11 on page 106 lists the output fields for the show virtual-chassis active-topology command. Output fields are listed in the approximate order in which they appear.

Table 11: show virtual-chassis active-topology Output Fields

Field Name	Field Description
Destination ID	Specifies the member ID of the destination.
Next-hop	<p>Specifies the member ID and Virtual Chassis port (VCP) of the next hop to which packets for the destination ID are forwarded.</p> <p>The next hop can be more than one device in a VCF.</p>

Sample Output

show virtual-chassis active-topology (EX4200 Virtual Chassis)

```

user@switch> show virtual-chassis active-topology
 1                      1(vcp-1)

 2                      1(vcp-1)

 3                      1(vcp-1)

 4                      1(vcp-1)

 5                      8(vcp-0) 1(vcp-1)

 6                      8(vcp-0)

 7                      8(vcp-0)

 8                      8(vcp-0)

```

show virtual-chassis active-topology (EX8200 Virtual Chassis)

```

user@external-routing-engine> show virtual-chassis active-topology
member0:

```

Destination ID	Next-hop
1	1(vcp-4/0/4.32768)
8	8(vcp-0/0.32768)
9	8(vcp-0/0.32768)

```
member1:
```

Destination ID	Next-hop
0	0(vcp-3/0/4.32768)
8	8(vcp-0/0.32768)
9	8(vcp-0/0.32768)

```
member8:
```

Destination ID	Next-hop
0	0(vcp-1/1.32768)
1	1(vcp-1/2.32768)
9	9(vcp-2/1.32768)

member9:

Destination ID	Next-hop
0	8(vcp-1/2.32768)
1	8(vcp-1/2.32768)
8	8(vcp-1/2.32768)

show virtual-chassis active-topology (Virtual Chassis Fabric)

user@device> show virtual-chassis active-topology
fpc0:

Destination ID	Next-hop
1 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
2 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
3 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
4	4(vcp-255/0/2.32768)
5	5(vcp-255/0/3.32768)
6	6(vcp-255/0/1.32768)

fpc1:

Destination ID	Next-hop
0 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
2 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
3 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
4	4(vcp-255/0/2.32768)
5	5(vcp-255/0/3.32768)
6	6(vcp-255/0/1.32768)

fpc2:

Destination ID	Next-hop
0 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
1 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
3 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
4	4(vcp-255/0/2.32768)
5	5(vcp-255/0/3.32768)
6	6(vcp-255/0/1.32768)

fpc3:

Destination ID	Next-hop
0 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
1 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
2 6(vcp-255/0/1.32768)	4(vcp-255/0/2.32768) 5(vcp-255/0/3.32768)
4	4(vcp-255/0/2.32768)
5	5(vcp-255/0/3.32768)
6	6(vcp-255/0/1.32768)

fpc4:

Destination ID	Next-hop
0	0(vcp-255/0/48.32768)
1	1(vcp-255/0/49.32768)
2	2(vcp-255/0/50.32768)
3	3(vcp-255/0/51.32768)
5 0(vcp-255/0/48.32768)	3(vcp-255/0/51.32768) 2(vcp-255/0/50.32768) 1(vcp-255/0/49.32768)
6 0(vcp-255/0/48.32768)	3(vcp-255/0/51.32768) 2(vcp-255/0/50.32768) 1(vcp-255/0/49.32768)

fpc5:

Destination ID	Next-hop
0	0(vcp-255/0/48.32768)

1	1(vcp-255/0/49.32768)	
2	2(vcp-255/0/50.32768)	
3	3(vcp-255/0/51.32768)	
4	3(vcp-255/0/51.32768)	2(vcp-255/0/50.32768)
0(vcp-255/0/48.32768)	1(vcp-255/0/49.32768)	
6	3(vcp-255/0/51.32768)	2(vcp-255/0/50.32768)
0(vcp-255/0/48.32768)	1(vcp-255/0/49.32768)	

fpc6:

Destination ID	Next-hop
0	0(vcp-255/0/0.32768)
1	1(vcp-255/0/1.32768)
2	2(vcp-255/0/2.32768)
3	3(vcp-255/0/3.32768)
4	3(vcp-255/0/3.32768) 2(vcp-255/0/2.32768)
0(vcp-255/0/0.32768)	1(vcp-255/0/1.32768)
5	3(vcp-255/0/3.32768) 2(vcp-255/0/2.32768)
0(vcp-255/0/0.32768)	1(vcp-255/0/1.32768)

show virtual-chassis device-topology

Syntax	show virtual-chassis device-topology <all-members> <local> <member <i>member-id</i> >
Release Information	Command introduced in Junos OS Release 10.4 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Display the device topology—the member and system IDs, the VCP numbers, and device status—for all hardware devices in the Virtual Chassis or VCF.
Options	<p>none—Display the device topology for all members of the Virtual Chassis or VCF.</p> <p>all-members—(Optional) Display the device topology for all members of the Virtual Chassis or VCF.</p> <p>local—(Optional) Display the device topology for the switch or external Routing Engine on which this command is entered.</p> <p>member <i>member-id</i>—(Optional) Display the device topology for the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	clear
Related Documentation	<ul style="list-style-type: none"> • Understanding EX Series Virtual Chassis Port Link Aggregation on page 22 • Understanding EX8200 Virtual Chassis Topologies
Output Fields	Table 12 on page 111 lists the output fields for the show virtual-chassis device-topology command. Output fields are listed in the approximate order in which they appear.

Table 12: show virtual-chassis device-topology Output Fields

Field Name	Field Description
Member	Assigned member ID.
Device	Assigned device ID. For an EX8200 Virtual Chassis, the member ID and the device ID are always identical.
Status	The status of the device within the Virtual Chassis or VCF. Outputs include: <ul style="list-style-type: none"> • Prsnt—Device is currently connected to and participating in the Virtual Chassis or VCF. • NotPrsnt—Device is assigned but is not currently connected.

Table 12: show virtual-chassis device-topology Output Fields (*continued*)

Field Name	Field Description
System ID	System ID of the device. The system ID of the device is the device's MAC address.
Member (Neighbor List)	Assigned member ID of the neighbor device.
Device (Neighbor List)	Assigned device ID of the neighbor device. For an EX8200 Virtual Chassis, the member ID and the device ID are always identical.
Interface (Neighbor List)	The interface connecting the device to the neighbor.

Sample Output

show virtual-chassis device-topology

```
user@switch> show virtual-chassis device-topology
```

```
member0:
```

```
-----
Member  Device  Status  System ID      Neighbor List
                                Member  Device  Interface
0        0        Prsnt   0021.59f7.d000  8        8        vcp-0/0
                                1        1        vcp-4/0/1
1        1        Prsnt   0026.888d.6800  8        8        vcp-0/0
                                9        9        vcp-0/1
                                0        0        vcp-3/0/4
8        8        Prsnt   0000.4a75.9b7c  9        9        vcp-1/0
                                0        0        vcp-1/1
                                1        1        vcp-1/2
9        9        Prsnt   0000.73e9.9a57  8        8        vcp-1/0
                                1        1        vcp-1/1
```

```
member1:
```

```
-----
Member  Device  Status  System ID      Neighbor List
                                Member  Device  Interface
0        0        Prsnt   0021.59f7.d000  8        8        vcp-0/0
                                1        1        vcp-4/0/1
1        1        Prsnt   0026.888d.6800  8        8        vcp-0/0
                                9        9        vcp-0/1
                                0        0        vcp-3/0/4
8        8        Prsnt   0000.4a75.9b7c  9        9        vcp-1/0
                                0        0        vcp-1/1
                                1        1        vcp-1/2
9        9        Prsnt   0000.73e9.9a57  8        8        vcp-1/0
                                1        1        vcp-1/1
```

```
member8:
```

```
-----
Member  Device  Status  System ID      Neighbor List
                                Member  Device  Interface
```

0	0	Prsnt	0021.59f7.d000	8	8	vcp-0/0
				1	1	vcp-4/0/1
1	1	Prsnt	0026.888d.6800	8	8	vcp-0/0
				9	9	vcp-0/1
				0	0	vcp-3/0/4
8	8	Prsnt	0000.4a75.9b7c	9	9	vcp-1/0
				0	0	vcp-1/1
				1	1	vcp-1/2
9	9	Prsnt	0000.73e9.9a57	8	8	vcp-1/0
				1	1	vcp-1/1

member9:

				Neighbor List		
Member	Device	Status	System ID	Member	Device	Interface
0	0	Prsnt	0021.59f7.d000	8	8	vcp-0/0
				1	1	vcp-4/0/1
1	1	Prsnt	0026.888d.6800	8	8	vcp-0/0
				9	9	vcp-0/1
				0	0	vcp-3/0/4
8	8	Prsnt	0000.4a75.9b7c	9	9	vcp-1/0
				0	0	vcp-1/1
				1	1	vcp-1/2
9	9	Prsnt	0000.73e9.9a57	8	8	vcp-1/0
				1	1	vcp-1/1

show virtual-chassis device-topology (Virtual Chassis Fabric)

user@device> show virtual-chassis device-topology
fpc0:

				Neighbor List		
Member	Device	Status	System ID	Member	Device	Interface
0	0	Prsnt	100e.7eb6.a900	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
1	1	Prsnt	100e.7eb8.3a40	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
2	2	Prsnt	100e.7eb5.d700	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
3	3	Prsnt	100e.7eb5.c440	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
4	4	Prsnt	100e.7eb5.7e40	3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				0	0	vcp-255/0/48
5	5	Prsnt	100e.7eb5.80c0	1	1	vcp-255/0/49
				3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				1	1	vcp-255/0/49
				0	0	vcp-255/0/48
6	6	Prsnt	100e.7eb6.3b00	3	3	vcp-255/0/3
				2	2	vcp-255/0/2
				0	0	vcp-255/0/0
				1	1	vcp-255/0/1

fpc1:

Neighbor List

Member	Device	Status	System ID	Member	Device	Interface
0	0	Prsnt	100e.7eb6.a900	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
1	1	Prsnt	100e.7eb8.3a40	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
2	2	Prsnt	100e.7eb5.d700	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
3	3	Prsnt	100e.7eb5.c440	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
4	4	Prsnt	100e.7eb5.7e40	3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				0	0	vcp-255/0/48
				1	1	vcp-255/0/49
5	5	Prsnt	100e.7eb5.80c0	3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				1	1	vcp-255/0/49
				0	0	vcp-255/0/48
6	6	Prsnt	100e.7eb6.3b00	3	3	vcp-255/0/3
				2	2	vcp-255/0/2
				0	0	vcp-255/0/0
				1	1	vcp-255/0/1

fpc2:

Neighbor List						
Member	Device	Status	System ID	Member	Device	Interface
0	0	Prsnt	100e.7eb6.a900	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
1	1	Prsnt	100e.7eb8.3a40	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
2	2	Prsnt	100e.7eb5.d700	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
3	3	Prsnt	100e.7eb5.c440	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
4	4	Prsnt	100e.7eb5.7e40	3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				0	0	vcp-255/0/48
				1	1	vcp-255/0/49
5	5	Prsnt	100e.7eb5.80c0	3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				1	1	vcp-255/0/49
				0	0	vcp-255/0/48
6	6	Prsnt	100e.7eb6.3b00	3	3	vcp-255/0/3
				2	2	vcp-255/0/2
				0	0	vcp-255/0/0
				1	1	vcp-255/0/1

fpc3:

Neighbor List						
Member	Device	Status	System ID	Member	Device	Interface
0	0	Prsnt	100e.7eb6.a900	4	4	vcp-255/0/2
				5	5	vcp-255/0/3

1	1	Prsnt	100e.7eb8.3a40	6	6	vcp-255/0/1
				4	4	vcp-255/0/2
				5	5	vcp-255/0/3
2	2	Prsnt	100e.7eb5.d700	6	6	vcp-255/0/1
				4	4	vcp-255/0/2
				5	5	vcp-255/0/3
3	3	Prsnt	100e.7eb5.c440	6	6	vcp-255/0/1
				4	4	vcp-255/0/2
				5	5	vcp-255/0/3
4	4	Prsnt	100e.7eb5.7e40	6	6	vcp-255/0/1
				3	3	vcp-255/0/51
				2	2	vcp-255/0/50
5	5	Prsnt	100e.7eb5.80c0	0	0	vcp-255/0/48
				1	1	vcp-255/0/49
				3	3	vcp-255/0/51
				2	2	vcp-255/0/50
6	6	Prsnt	100e.7eb6.3b00	1	1	vcp-255/0/49
				0	0	vcp-255/0/48
				3	3	vcp-255/0/3
				2	2	vcp-255/0/2
				0	0	vcp-255/0/0
				1	1	vcp-255/0/1

fpc4:

				Neighbor List		
Member	Device	Status	System ID	Member	Device	Interface
0	0	Prsnt	100e.7eb6.a900	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
1	1	Prsnt	100e.7eb8.3a40	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
2	2	Prsnt	100e.7eb5.d700	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
3	3	Prsnt	100e.7eb5.c440	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
4	4	Prsnt	100e.7eb5.7e40	3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				0	0	vcp-255/0/48
5	5	Prsnt	100e.7eb5.80c0	1	1	vcp-255/0/49
				3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				1	1	vcp-255/0/49
6	6	Prsnt	100e.7eb6.3b00	0	0	vcp-255/0/48
				3	3	vcp-255/0/3
				2	2	vcp-255/0/2
				0	0	vcp-255/0/0
				1	1	vcp-255/0/1

fpc5:

				Neighbor List		
Member	Device	Status	System ID	Member	Device	Interface
0	0	Prsnt	100e.7eb6.a900	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
1	1	Prsnt	100e.7eb8.3a40	4	4	vcp-255/0/2
				5	5	vcp-255/0/3

2	2	Prsnt	100e.7eb5.d700	6	6	vcp-255/0/1
				4	4	vcp-255/0/2
				5	5	vcp-255/0/3
3	3	Prsnt	100e.7eb5.c440	6	6	vcp-255/0/1
				4	4	vcp-255/0/2
				5	5	vcp-255/0/3
4	4	Prsnt	100e.7eb5.7e40	6	6	vcp-255/0/1
				3	3	vcp-255/0/51
				2	2	vcp-255/0/50
5	5	Prsnt	100e.7eb5.80c0	0	0	vcp-255/0/48
				1	1	vcp-255/0/49
				3	3	vcp-255/0/51
6	6	Prsnt	100e.7eb6.3b00	2	2	vcp-255/0/50
				1	1	vcp-255/0/49
				0	0	vcp-255/0/48
				3	3	vcp-255/0/3
				2	2	vcp-255/0/2
				0	0	vcp-255/0/0
				1	1	vcp-255/0/1

fpc6:

				Neighbor List		
Member	Device	Status	System ID	Member	Device	Interface
0	0	Prsnt	100e.7eb6.a900	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
1	1	Prsnt	100e.7eb8.3a40	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
2	2	Prsnt	100e.7eb5.d700	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
3	3	Prsnt	100e.7eb5.c440	4	4	vcp-255/0/2
				5	5	vcp-255/0/3
				6	6	vcp-255/0/1
4	4	Prsnt	100e.7eb5.7e40	3	3	vcp-255/0/51
				2	2	vcp-255/0/50
				0	0	vcp-255/0/48
5	5	Prsnt	100e.7eb5.80c0	1	1	vcp-255/0/49
				3	3	vcp-255/0/51
				2	2	vcp-255/0/50
6	6	Prsnt	100e.7eb6.3b00	1	1	vcp-255/0/49
				0	0	vcp-255/0/48
				3	3	vcp-255/0/3
				2	2	vcp-255/0/2
				0	0	vcp-255/0/0
				1	1	vcp-255/0/1

show virtual-chassis protocol adjacency

Syntax	<pre>show virtual-chassis protocol adjacency <brief detail extensive> <all-members> <local> <member member-id> <system-id></pre>
Release Information	<p>Command introduced in Junos OS Release 10.4 for EX Series switches.</p> <p>Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series.</p> <p>Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).</p>
Description	Display the Virtual Chassis Control Protocol (VCCP) adjacency statistics in the Virtual Chassis or VCF for all hardware devices.
Options	<p>none—Display VCCP adjacency statistics in brief form for all members of the Virtual Chassis or VCF.</p> <p>brief detail extensive—(Optional) Display the specified level of output. Using the brief option is equivalent to entering the command with no options (the default). The detail and extensive options provide identical displays.</p> <p>all-members—(Optional) Display VCCP adjacency statistics in brief form for all members of the Virtual Chassis or VCF.</p> <p>local—(Optional) Display VCCP adjacency statistics for the switch or external Routing Engine on which this command is entered.</p> <p>member member-id—(Optional) Display VCCP adjacency statistics for the specified member of the Virtual Chassis or VCF.</p> <p>system-id—(Optional) Display VCCP adjacency statistics for the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	clear
Related Documentation	<ul style="list-style-type: none"> • Understanding EX Series Virtual Chassis Port Link Aggregation on page 22 • Understanding the Virtual Chassis Control Protocol in an EX8200 Virtual Chassis
List of Sample Output	<p>show virtual-chassis protocol adjacency on page 118</p> <p>show virtual-chassis protocol adjacency detail on page 119</p>
Output Fields	Table 13 on page 118 lists the output fields for the show virtual-chassis protocol adjacency command. Output fields are listed in the approximate order in which they appear.

Table 13: show virtual-chassis protocol adjacency Output Fields

Field Name	Field Description	Level of Output
Interface	Name of the Virtual Chassis port (VCP) interface.	All levels
System	The MAC address of the device on the receiving side of the VCP link.	All levels
State	State of the link. Outputs include: <ul style="list-style-type: none"> • Up—The link is up. • Down—The link is down. • New—The link is new. • One-way—The link is transmitting traffic in one direction. • Initializing—The link is initializing. • Rejected—The link is rejected. 	All levels
Hold, Expires in	Remaining holdtime of the adjacency.	All levels
Priority	Priority to become the designated intermediary system.	detail
Up/Down Transitions	Count of adjacency status transition changes from up to down or down to up.	detail
Last transition	Time of the last up/down transition.	detail

Sample Output

show virtual-chassis protocol adjacency

```
user@switch> show virtual-chassis protocol adjacency
```

```
member0:
```

```
-----
Interface      System      State      Hold (secs)
vcp-0/0.32768  0000.4a75.9b7c Up          57
vcp-0/1.32768  0000.4a75.9b7c Up          59
vcp-4/0/1.32768 0026.888d.6800 Up          57
```

```
member1:
```

```
-----
Interface      System      State      Hold (secs)
vcp-0/0.32768  0000.4a75.9b7c Up          58
vcp-0/1.32768  0000.73e9.9a57 Up          59
vcp-3/0/4.32768 0021.59f7.d000 Up          58
```

```
member8:
```

```
-----
Interface      System      State      Hold (secs)
vcp-1/0.32768  0000.73e9.9a57 Up          58
vcp-1/1.32768  0021.59f7.d000 Up          58
vcp-1/2.32768  0026.888d.6800 Up          59
vcp-2/0.32768  0021.59f7.d000 Up          59
```

```
member9:
```

```
-----
Interface      System      State      Hold (secs)
```

vcp-1/0.32768	0000.4a75.9b7c Up	58
vcp-1/1.32768	0026.888d.6800 Up	59

show virtual-chassis protocol adjacency detail

```
user@switch> show virtual-chassis protocol adjacency detail
```

```
member0:
```

```
-----
0000.4a75.9b7c
  interface-name: vcp-0/0.32768, State: Up, Expires in 57 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 19:26:37 ago
```

```
0000.4a75.9b7c
  interface-name: vcp-0/1.32768, State: Up, Expires in 59 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 19:26:37 ago
```

```
0026.888d.6800
  interface-name: vcp-4/0/1.32768, State: Up, Expires in 59 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 22:06:39 ago
```

```
member1:
```

```
-----
0000.4a75.9b7c
  interface-name: vcp-0/0.32768, State: Up, Expires in 59 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 19:26:38 ago
```

```
0000.73e9.9a57
  interface-name: vcp-0/1.32768, State: Up, Expires in 58 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 22:17:36 ago
```

```
0021.59f7.d000
  interface-name: vcp-3/0/4.32768, State: Up, Expires in 58 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 22:06:39 ago
```

```
member8:
```

```
-----
0000.73e9.9a57
  interface-name: vcp-1/0.32768, State: Up, Expires in 58 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 19:26:38 ago
```

```
0021.59f7.d000
  interface-name: vcp-1/1.32768, State: Up, Expires in 59 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 19:26:38 ago
```

```
0026.888d.6800
  interface-name: vcp-1/2.32768, State: Up, Expires in 59 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 19:26:38 ago
```

```
0021.59f7.d000
  interface-name: vcp-2/0.32768, State: Up, Expires in 57 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 19:26:38 ago
```

```
member9:
```

```
-----
0000.4a75.9b7c
  interface-name: vcp-1/0.32768, State: Up, Expires in 59 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 19:26:38 ago
```

```
0026.888d.6800
  interface-name: vcp-1/1.32768, State: Up, Expires in 58 secs
  Priority: 0, Up/Down transitions: 1, Last transition: 22:17:36 ago
```

show virtual-chassis protocol database

Syntax	show virtual-chassis protocol database <brief detail extensive> <all-members> <local> <member <i>member-id</i> >
Release Information	Command introduced in Junos OS Release 10.4 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Display the Virtual Chassis Control Protocol (VCCP) database statistics for all hardware devices within the Virtual Chassis or VCF.
Options	<p>none—Display VCCP database statistics in brief form for all members of the Virtual Chassis or VCF.</p> <p>brief detail extensive—(Optional) Display the specified level of output. Using the brief option is equivalent to entering the command with no options (the default). The detail option provides more output than the brief option. The extensive option provides all output and is most useful for customer support personnel.</p> <p>all-members—(Optional) Display VCCP database statistics in brief form for all members of the Virtual Chassis or VCF.</p> <p>local—(Optional) Display VCCP database statistics for the switch or external Routing Engine on which this command is entered.</p> <p>member <i>member-id</i>—(Optional) Display VCCP database statistics for the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	clear
Related Documentation	<ul style="list-style-type: none"> • <i>Understanding the Virtual Chassis Control Protocol in an EX8200 Virtual Chassis</i> • Understanding EX Series Virtual Chassis Components on page 5 • <i>Understanding QFX Series Virtual Chassis Components</i>
List of Sample Output	show virtual-chassis protocol database on page 122 show virtual-chassis protocol database detail on page 123
Output Fields	Table 14 on page 121 lists the output fields for the show virtual-chassis protocol database command. Output fields are listed in the approximate order in which they appear.

Table 14: show virtual-chassis protocol database Output Fields

Field Name	Field Description	Level of Output
LSP ID	Link-state protocol (LSP) data unit identifier.	All levels

Table 14: show virtual-chassis protocol database Output Fields (*continued*)

Field Name	Field Description	Level of Output
Sequence	Sequence number of the LSP.	All levels
Checksum	Checksum value of the LSP.	All levels
Lifetime	Remaining lifetime of the LSP, in seconds.	All levels
Neighbor	MAC address of the neighbor on the advertising system.	detail
Interface	Virtual Chassis port (VCP) interface name.	detail
Metric	Metric of the prefix or neighbor.	detail

The **extensive** output was omitted from this list. The **extensive** output is useful for customer support personnel only.

Sample Output

show virtual-chassis protocol database

```
user@switch> show virtual-chassis protocol database
```

```
member0:
```

```
-----
LSP ID          Sequence Checksum Lifetime
0000.4a75.9b7c.00-00  0x1dd80  0xc2e3   116
0000.73e9.9a57.00-00  0xf361  0x27e8   113
0021.59f7.d000.00-00  0x16882  0x3993   118
0026.888d.6800.00-00  0x1691f  0x82b7   116
  4 LSPs
```

```
member1:
```

```
-----
LSP ID          Sequence Checksum Lifetime
0000.4a75.9b7c.00-00  0x1dd80  0xc2e3   116
0000.73e9.9a57.00-00  0xf361  0x27e8   114
0021.59f7.d000.00-00  0x16883  0x289    116
0026.888d.6800.00-00  0x1691f  0x82b7   118
  4 LSPs
```

```
member8:
```

```
-----
LSP ID          Sequence Checksum Lifetime
0000.4a75.9b7c.00-00  0x1dd80  0xc2e3   118
0000.73e9.9a57.00-00  0xf361  0x27e8   114
0021.59f7.d000.00-00  0x16883  0x289    116
0026.888d.6800.00-00  0x16920  0xa335   116
  4 LSPs
```

```
member9:
```

```
-----
LSP ID          Sequence Checksum Lifetime
0000.4a75.9b7c.00-00  0x1dd80  0xc2e3   116
0000.73e9.9a57.00-00  0xf361  0x27e8   116
0021.59f7.d000.00-00  0x16883  0x289    114
```

```
0026.888d.6800.00-00      0x16920   0xa335      116
4 LSPs
```

show virtual-chassis protocol database detail

```
user@switch> show virtual-chassis protocol database detail
member0:
```

```
-----
0000.4a75.9b7c.00-00 Sequence: 0x1ddbc, Checksum: 0x3111, Lifetime: 115 secs
Neighbor: 0000.73e9.9a57.00 Interface: vcp-1/0.32768 Metric: 150
Neighbor: 0021.59f7.d000.00 Interface: vcp-1/1.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-1/2.32768 Metric: 150
```

```
0000.73e9.9a57.00-00 Sequence: 0xf381, Checksum: 0xe065, Lifetime: 114 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-1/0.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-1/1.32768 Metric: 150
```

```
0021.59f7.d000.00-00 Sequence: 0x168af, Checksum: 0x8b0b, Lifetime: 118 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-0/0.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-4/0/1.32768 Metric: 15
```

```
0026.888d.6800.00-00 Sequence: 0x1694e, Checksum: 0xca97, Lifetime: 115 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-0/0.32768 Metric: 150
Neighbor: 0000.73e9.9a57.00 Interface: vcp-0/1.32768 Metric: 150
Neighbor: 0021.59f7.d000.00 Interface: vcp-3/0/4.32768 Metric: 15
```

```
member1:
```

```
-----
0000.4a75.9b7c.00-00 Sequence: 0x1ddbc, Checksum: 0x3111, Lifetime: 115 secs
Neighbor: 0000.73e9.9a57.00 Interface: vcp-1/0.32768 Metric: 150
Neighbor: 0021.59f7.d000.00 Interface: vcp-1/1.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-1/2.32768 Metric: 150
```

```
0000.73e9.9a57.00-00 Sequence: 0xf381, Checksum: 0xe065, Lifetime: 116 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-1/0.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-1/1.32768 Metric: 150
```

```
0021.59f7.d000.00-00 Sequence: 0x168af, Checksum: 0x8b0b, Lifetime: 116 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-0/0.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-4/0/1.32768 Metric: 15
```

```
0026.888d.6800.00-00 Sequence: 0x1694e, Checksum: 0xca97, Lifetime: 117 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-0/0.32768 Metric: 150
Neighbor: 0000.73e9.9a57.00 Interface: vcp-0/1.32768 Metric: 150
Neighbor: 0021.59f7.d000.00 Interface: vcp-3/0/4.32768 Metric: 15
```

```
member8:
```

```
-----
0000.4a75.9b7c.00-00 Sequence: 0x1ddbd, Checksum: 0xfd83, Lifetime: 118 secs
Neighbor: 0000.73e9.9a57.00 Interface: vcp-1/0.32768 Metric: 150
Neighbor: 0021.59f7.d000.00 Interface: vcp-1/1.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-1/2.32768 Metric: 150
```

```
0000.73e9.9a57.00-00 Sequence: 0xf381, Checksum: 0xe065, Lifetime: 115 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-1/0.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-1/1.32768 Metric: 150
```

```
0021.59f7.d000.00-00 Sequence: 0x168af, Checksum: 0x8b0b, Lifetime: 116 secs
```

```
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-0/0.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-4/0/1.32768 Metric: 15

0026.888d.6800.00-00 Sequence: 0x1694e, Checksum: 0xca97, Lifetime: 115 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-0/0.32768 Metric: 150
Neighbor: 0000.73e9.9a57.00 Interface: vcp-0/1.32768 Metric: 150
Neighbor: 0021.59f7.d000.00 Interface: vcp-3/0/4.32768 Metric: 15

member9:
-----

0000.4a75.9b7c.00-00 Sequence: 0x1ddbd, Checksum: 0xfd83, Lifetime: 116 secs
Neighbor: 0000.73e9.9a57.00 Interface: vcp-1/0.32768 Metric: 150
Neighbor: 0021.59f7.d000.00 Interface: vcp-1/1.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-1/2.32768 Metric: 150

0000.73e9.9a57.00-00 Sequence: 0xf381, Checksum: 0xe065, Lifetime: 117 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-1/0.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-1/1.32768 Metric: 150

0021.59f7.d000.00-00 Sequence: 0x168af, Checksum: 0x8b0b, Lifetime: 113 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-0/0.32768 Metric: 150
Neighbor: 0026.888d.6800.00 Interface: vcp-4/0/1.32768 Metric: 15

0026.888d.6800.00-00 Sequence: 0x1694f, Checksum: 0xa61a, Lifetime: 116 secs
Neighbor: 0000.4a75.9b7c.00 Interface: vcp-0/0.32768 Metric: 150
Neighbor: 0000.73e9.9a57.00 Interface: vcp-0/1.32768 Metric: 150
Neighbor: 0021.59f7.d000.00 Interface: vcp-3/0/4.32768 Metric: 15
```

show virtual-chassis protocol interface

Syntax	<pre>show virtual-chassis protocol interface <brief detail> <all-members> <interface-name> <local> <member member-id></pre>
Release Information	<p>Command introduced in Junos OS Release 10.4 for EX Series switches.</p> <p>Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series.</p> <p>Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).</p>
Description	Display information about Virtual Chassis Control Protocol (VCCP) statistics for VCCP-enabled interfaces within the Virtual Chassis or VCF.
Options	<p>none—Display the VCCP interface statistics in brief form for all members of the Virtual Chassis or VCF.</p> <p>brief detail —(Optional) Display the specified level of output. Using the brief option is equivalent to entering the command with no options (the default). The detail option provides more output than the brief option.</p> <p>all-members—(Optional) Display VCCP interface statistics for all members of the Virtual Chassis or VCF.</p> <p>interface-name—(Optional) Display VCCP interface statistics for the specified interface.</p> <p>local—(Optional) Display VCCP interface statistics for the switch or external Routing Engine on which this command is entered.</p> <p>member member-id—(Optional) Display VCCP interface statistics for the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	clear
Related Documentation	<ul style="list-style-type: none"> • <i>EX Series Virtual Chassis Overview</i> • <i>Understanding QFX Series Virtual Chassis</i> • <i>Understanding Virtual Chassis Ports in an EX8200 Virtual Chassis</i> • <i>Understanding the Virtual Chassis Control Protocol in an EX8200 Virtual Chassis</i>
List of Sample Output	show virtual-chassis protocol interface on page 126
Output Fields	Table 15 on page 126 lists the output fields for the show virtual-chassis protocol interface command. Output fields are listed in the approximate order in which they appear.

Table 15: show virtual-chassis protocol interface Output Fields

Field Name	Field Description	Level of Output
Interface	Name of the VCP.	All levels
State	State of the link. Outputs include: <ul style="list-style-type: none"> • Up—The link is up. • Down—The link is down. 	All levels
Metric	Metric of the prefix or neighbor.	All levels

Sample Output

show virtual-chassis protocol interface

```
user@switch> show virtual-chassis protocol interface
```

```
member0:
```

```
-----
IS-IS interface database:
```

Interface	State	Metric
vcp-0/0.32768	Up	150
vcp-0/1.32768	Up	150
vcp-4/0/1.32768	Up	15
vcp-4/0/7.32768	Down	15

```
member1:
```

```
-----
IS-IS interface database:
```

Interface	State	Metric
vcp-0/0.32768	Up	150
vcp-0/1.32768	Up	150
vcp-3/0/4.32768	Up	15

```
member8:
```

```
-----
IS-IS interface database:
```

Interface	State	Metric
vcp-0/0.32768	Down	150
vcp-1/0.32768	Up	150
vcp-1/1.32768	Up	150
vcp-1/2.32768	Up	150
vcp-1/3.32768	Down	150
vcp-2/0.32768	Up	150
vcp-2/1.32768	Down	150
vcp-2/2.32768	Down	150
vcp-2/3.32768	Down	150

```
member9:
```

```
-----
IS-IS interface database:
```

Interface	State	Metric
vcp-0/0.32768	Down	150
vcp-1/0.32768	Up	150
vcp-1/1.32768	Up	150
vcp-1/2.32768	Down	150
vcp-1/3.32768	Down	150

show virtual-chassis protocol route

Syntax	show virtual-chassis protocol route <all-members> <destination-id> <local> <member member-id>
Release Information	Command introduced in Junos OS Release 10.4 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Display the unicast and multicast Virtual Chassis Control Protocol (VCCP) routing tables within the Virtual Chassis or VCF.
Options	<p>none—Display the unicast and multicast routing tables for all members of the Virtual Chassis.</p> <p>all-members—(Optional) Display the unicast and multicast routing tables for all members of the Virtual Chassis or VCF.</p> <p>destination-id—(Optional) Display the unicast and multicast routing tables to the specified destination member ID for each member of the Virtual Chassis or VCF.</p> <p>local—(Optional) Display the unicast and multicast routing tables on the device where this command is entered.</p> <p>member member-id—(Optional) Display the unicast and multicast routing tables for the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	clear
Related Documentation	<ul style="list-style-type: none"> • <i>EX Series Virtual Chassis Overview</i> • <i>Understanding QFX Series Virtual Chassis</i> • <i>Understanding the Virtual Chassis Control Protocol in an EX8200 Virtual Chassis</i>
List of Sample Output	show virtual-chassis protocol route on page 129
Output Fields	Table 16 on page 128 lists the output fields for the show virtual-chassis protocol route command. Output fields are listed in the approximate order in which they appear.

Table 16: show virtual-chassis protocol route Output Fields

Field Name	Field Description
Dev	MAC address of the member storing the VCCP routing table.
Version	Version of the shortest-path-first algorithm that generated the routing table.

Table 16: show virtual-chassis protocol route Output Fields (*continued*)

Field Name	Field Description
System ID	MAC address of the device.
Version	Version of the shortest-path-first (SPF) algorithm that generated the route.
Metric	The metric number to get to that device.
Interface	Name of the Virtual Chassis port (VCP) interface connecting the devices.
Via	MAC address of the next-hop device, if applicable.

Sample Output

show virtual-chassis protocol route

```

user@switch> show virtual-chassis protocol route
member0:
-----
Dev 0021.59f7.d000 ucast routing table          Current version: 21
-----
System ID      Version  Metric Interface  Via
0000.4a75.9b7c    21      150 vcp-0/1.32768 0000.4a75.9b7c
0000.73e9.9a57    21      165 vcp-4/0/1.32768 0026.888d.6800
0021.59f7.d000    21        0
0026.888d.6800    21      15 vcp-4/0/1.32768 0026.888d.6800

Dev 0021.59f7.d000 mcast routing table          Current version: 21
-----
System ID      Version  Metric Interface  Via
0000.4a75.9b7c    21
0000.73e9.9a57    21
0021.59f7.d000    21      vcp-4/0/1.32768
                                vcp-0/1.32768
0026.888d.6800    21

member1:
-----
Dev 0026.888d.6800 ucast routing table          Current version: 25
-----
System ID      Version  Metric Interface  Via
0000.4a75.9b7c    25      150 vcp-0/0.32768 0000.4a75.9b7c
0000.73e9.9a57    25      150 vcp-0/1.32768 0000.73e9.9a57
0021.59f7.d000    25      15 vcp-3/0/4.32768 0021.59f7.d000
0026.888d.6800    25        0

Dev 0026.888d.6800 mcast routing table          Current version: 25
-----
System ID      Version  Metric Interface  Via
0000.4a75.9b7c    25
0000.73e9.9a57    25      vcp-3/0/4.32768
0021.59f7.d000    25      vcp-0/1.32768
0026.888d.6800    25      vcp-3/0/4.32768
                                vcp-0/0.32768

```

vcp-0/1.32768

member8:

Dev 0000.4a75.9b7c ucast routing table Current version: 39

System ID	Version	Metric	Interface	Via
0000.4a75.9b7c	39	0		
0000.73e9.9a57	39	150	vcp-1/0.32768	0000.73e9.9a57
0021.59f7.d000	39	150	vcp-2/0.32768	0021.59f7.d000
0026.888d.6800	39	150	vcp-1/2.32768	0026.888d.6800

Dev 0000.4a75.9b7c mcast routing table Current version: 39

System ID	Version	Metric	Interface	Via
0000.4a75.9b7c	39		vcp-1/0.32768	
			vcp-2/0.32768	
			vcp-1/2.32768	
0000.73e9.9a57	39			
0021.59f7.d000	39			
0026.888d.6800	39			

member9:

Dev 0000.73e9.9a57 ucast routing table Current version: 31

System ID	Version	Metric	Interface	Via
0000.4a75.9b7c	31	150	vcp-1/0.32768	0000.4a75.9b7c
0000.73e9.9a57	31	0		
0021.59f7.d000	31	165	vcp-1/1.32768	0026.888d.6800
0026.888d.6800	31	150	vcp-1/1.32768	0026.888d.6800

Dev 0000.73e9.9a57 mcast routing table Current version: 31

System ID	Version	Metric	Interface	Via
0000.4a75.9b7c	31			
0000.73e9.9a57	31		vcp-1/0.32768	
			vcp-1/1.32768	
0021.59f7.d000	31			
0026.888d.6800	31			

show virtual-chassis protocol statistics

Syntax	show virtual-chassis protocol statistics <all-members> <interface-name> <local> <member member-id>
Release Information	Command introduced in Junos OS Release 10.4 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Display the Virtual Chassis Control Protocol (VCCP) statistics for all hardware devices within the Virtual Chassis or VCF.
Options	<p>none—Display VCCP statistics for all members of the Virtual Chassis or VCF.</p> <p>all-members—(Optional) Display VCCP statistics for all members of the Virtual Chassis or VCF.</p> <p>interface-name—(Optional) Display VCCP statistics for the specified interface.</p> <p>local—(Optional) Display VCCP statistics for the switch or external Routing Engine on which this command is entered.</p> <p>member member-id—(Optional) Display VCCP statistics for the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	clear
Related Documentation	<ul style="list-style-type: none"> • <i>EX Series Virtual Chassis Overview</i> • <i>Understanding QFX Series Virtual Chassis</i> • <i>Understanding the Virtual Chassis Control Protocol in an EX8200 Virtual Chassis</i>
List of Sample Output	show virtual-chassis protocol statistics on page 132
Output Fields	Table 17 on page 131 lists the output fields for the show virtual-chassis protocol interface command. Output fields are listed in the approximate order in which they appear.

Table 17: show virtual-chassis protocol statistics Output Fields

Field Name	Field Description
PDU type	Protocol data unit type.
Received	Number of PDUs received since VCCP started or since the statistics were set to zero.
Processed	Number of PDUs received minus the number of PDUs dropped.

Table 17: show virtual-chassis protocol statistics Output Fields (*continued*)

Field Name	Field Description
Drops	Number of PDUs dropped.
Sent	Number of PDUs transmitted since VCCP started or since the statistics were set to zero.
Rexmit	Number of PDUs retransmitted since VCCP started or since the statistics were set to zero.
Total Packets Received	Number of PDUs received since VCCP started or since the statistics were set to zero.
Total Packets Sent	Number of PDUs sent since VCCP started or since the statistics were set to zero.
LSP queue length	Number of link-state PDUs waiting in the queue for processing. This value is almost always 0.
SPF runs	Number of shortest-path-first (SPF) calculations that have been performed.
Fragments Rebuilt	Number of link-state PDU fragments that the local system has computed.
LSP Regenerations	Number of link-state PDUs that have been regenerated. A link-state PDU is regenerated when it is nearing the end of its lifetime and it has not changed.
Purges initiated	Number of purges that the system initiated. A purge is initiated if the software determines that a link-state PDU must be removed from the network.

Sample Output

show virtual-chassis protocol statistics

```

user@switch> show virtual-chassis protocol statistics
member0:
-----
IS-IS statistics for 0021.59f7.d000:
PDU type      Received    Processed      Drops      Sent      Rexmit
LSP            8166         8166           0          4551       0
HELLO          1659         1659           0          1693       0
CSNP            2             2              0           3          0
PSNP           1909         1909           0          2293       0
Unknown         0             0              0           0          0
Totals         11736        11736           0          8540       0

Total packets received: 11736 Sent: 8540

LSP queue length: 0 Drops: 0
SPF runs: 9
Fragments rebuilt: 1640
LSP regenerations: 1
Purges initiated: 0

member1:
-----
IS-IS statistics for 0026.888d.6800:

```

PDU type	Received	Processed	Drops	Sent	Rexmit
LSP	10909	10909	0	12088	0
HELLO	1877	1877	0	2251	0
CSNP	3	3	0	3	0
PSNP	3846	3846	0	3732	0
Unknown	0	0	0	0	0
Totals	16635	16635	0	18074	0

Total packets received: 16635 Sent: 18074

LSP queue length: 0 Drops: 0
 SPF runs: 13
 Fragments rebuilt: 1871
 LSP regenerations: 2
 Purges initiated: 0

member8:

IS-IS statistics for 0000.4a75.9b7c:

PDU type	Received	Processed	Drops	Sent	Rexmit
LSP	7935	7935	0	14865	0
HELLO	2695	2695	0	7124	0
CSNP	4	4	0	4	0
PSNP	4398	4398	0	3666	0
Unknown	0	0	0	0	0
Totals	15032	15032	0	25659	0

Total packets received: 15032 Sent: 25659

LSP queue length: 0 Drops: 0
 SPF runs: 26
 Fragments rebuilt: 2666
 LSP regenerations: 4
 Purges initiated: 0

member9:

IS-IS statistics for 0000.73e9.9a57:

PDU type	Received	Processed	Drops	Sent	Rexmit
LSP	10800	10800	0	6327	0
HELLO	1492	1492	0	2356	0
CSNP	2	2	0	2	0
PSNP	2683	2683	0	3149	0
Unknown	0	0	0	0	0
Totals	14977	14977	0	11834	0

Total packets received: 14977 Sent: 11834

LSP queue length: 0 Drops: 0
 SPF runs: 19
 Fragments rebuilt: 1510
 LSP regenerations: 6
 Purges initiated: 0

show virtual-chassis login

Syntax	show virtual-chassis login
Release Information	Command introduced in Junos OS Release 9.3 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Supply the address of the host that logged into the Virtual Chassis or VCF, or identify the location of the member switch that redirected the current session to a different member switch. You might need this information for tracing or troubleshooting purposes.
Required Privilege Level	view
Related Documentation	<ul style="list-style-type: none">• request session member on page 98• Understanding Global Management of a Virtual Chassis on page 19
List of Sample Output	show virtual-chassis login (Direct Login to the Master Console Port) on page 134 show virtual-chassis login (Backup Console Session Redirected to the Master Console Port) on page 134

Sample Output

show virtual-chassis login (Direct Login to the Master Console Port)

```
user@switch> show virtual-chassis login
Current login session initiated from host 192.0.2.3
```

show virtual-chassis login (Backup Console Session Redirected to the Master Console Port)

```
user@switch> show virtual-chassis login
Current login session initiated from host backup
```

show virtual-chassis

Syntax	show virtual-chassis <status>
Release Information	<p>Command introduced in Junos OS Release 9.2 for EX Series switches.</p> <p>Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series.</p> <p>Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF). Fabric ID, Fabric Mode, and Route Mode output fields introduced in Junos OS Release 13.2X51-D20.</p> <p>Alias-Name output field introduced in Junos OS Release 14.1X53-D10.</p>
Description	Display information about all members of the Virtual Chassis or VCF.
Options	<p>none—Display information about all Virtual Chassis or VCF member devices.</p> <p>status—Same output as for show virtual-chassis.</p>
Required Privilege Level	view
Related Documentation	<ul style="list-style-type: none"> • show virtual-chassis active-topology on page 106 • show virtual-chassis protocol adjacency on page 117 • show virtual-chassis vc-path on page 140 • Monitoring the Virtual Chassis Status and Statistics on EX Series Virtual Chassis on page 58
List of Sample Output	<p>show virtual-chassis (EX4200 Virtual Chassis) on page 137</p> <p>show virtual-chassis (EX8200 Virtual Chassis) on page 138</p> <p>show virtual-chassis (Virtual Chassis Fabric) on page 138</p>
Output Fields	<p>Table 18 on page 135 lists the output fields for the show virtual-chassis command. Output fields are listed in the approximate order in which they appear.</p>

Table 18: show virtual-chassis Output Fields

Field Name	Field Description
Fabric ID	Assigned ID used to identify the VCF.
Fabric Mode	Mode of the VCF: Enabled, Disabled, or Mixed.
Virtual Chassis ID	Assigned ID that applies to the entire Virtual Chassis or VCF.

Table 18: show virtual-chassis Output Fields (*continued*)

Field Name	Field Description
Virtual Chassis Mode	<p>Mode of the Virtual Chassis or VCF. This field indicates support for the Virtual Chassis feature and, if a Virtual Chassis is configured, if it is a mixed or homogenous Virtual Chassis. Values can be:</p> <ul style="list-style-type: none"> • Enabled—The platform supports the Virtual Chassis feature. If a Virtual Chassis is currently configured, this is a homogenous Virtual Chassis (all members are the same type of switch). • Disabled—The switch does not support the Virtual Chassis feature. <p>NOTE: Switches that support the Virtual Chassis feature do not display this value. Even if a Virtual Chassis is not currently configured, those switches display Enabled in this field.</p> <ul style="list-style-type: none"> • Mixed—The platform supports the Virtual Chassis feature, and is configured as a mixed mode Virtual Chassis (members consist of more than one type of switch).
Member ID	<p>Assigned member ID and FPC:</p> <ul style="list-style-type: none"> • On all EX Series Virtual Chassis except EX8200 Virtual Chassis, and on a VCF, the FPC number refers to the member ID assigned to the switch. • On EX8200 Virtual Chassis, member IDs are numbered 0 through 9. The FPC number indicates the slot number of the line card within the Virtual Chassis. The FPC number on member 0 is always 0 through 15. The FPC number on member 1 is always 16 through 31. The FPC number on member 2 is always 32 through 47; and so on for the members.
Status	<p>For a nonprovisioned configuration:</p> <ul style="list-style-type: none"> • Prsnt for a member that is currently connected to the Virtual Chassis or VCF configuration. • NotPrsnt for a member ID that has been assigned but is not currently connected. <p>For a preprovisioned configuration:</p> <ul style="list-style-type: none"> • Prsnt for a member that is specified in the preprovisioned configuration file and is currently connected to the Virtual Chassis or VCF. • Unprvsnd for a member that is interconnected with the Virtual Chassis or VCF configuration but is not specified in the preprovisioned configuration file.
Serial No	Serial number of the member device.
Alias-Name	<p>The user-configured alias of the member device.</p> <p>The Alias-Name field appears only if an alias has been configured for at least one device in the Virtual Chassis or VCF. Aliases are configured using the alias-name statement in the <code>[edit virtual-chassis aliases serial-number serial-number]</code> hierarchy.</p>
Model	Model number of the member device.
Mastership Priority	Mastership priority value of the member device.
Role	Role of the member device: master, backup, or linecard.

Table 18: show virtual-chassis Output Fields (*continued*)

Field Name	Field Description
Mixed Mode	Mixed mode configuration status: <ul style="list-style-type: none"> • Y for a member device configured in mixed mode. • N for a member device not configured in mixed mode. • NA for a member device that cannot be configured in mixed mode.
Route Mode	The route mode of the member device: fabric (F) or Virtual Chassis (V).
Location	Location of the member device. If this field is empty, the location field was not set for the device.
Neighbor List	Member ID of the neighbor member to which this member's Virtual Chassis port (VCP) is connected.

Sample Output

show virtual-chassis (EX4200 Virtual Chassis)

```

user@switch> show virtual-chassis
Virtual Chassis ID: 0019.e250.47a0
Virtual Chassis Mode: Enabled

```

Member ID	Status	Serial No	Model	Mastership priority	Role	Mixed Mode	Neighbor List ID	Interface
0 (FPC 0)	Prsnt	AK0207360276	ex4200-24t	249	Master*	N	8	vcp-0
							1	vcp-1
1 (FPC 1)	Prsnt	AK0207360281	ex4200-24t	248	Backup	N	0	vcp-0
							2	vcp-1
2 (FPC 2)	Prsnt	AJ0207391130	ex4200-48p	247	Linecard	N	1	vcp-0
							3	vcp-1
3 (FPC 3)	Prsnt	AK0207360280	ex4200-24t	246	Linecard	N	2	vcp-0
							4	vcp-1
4 (FPC 4)	Prsnt	AJ0207391113	ex4200-48p	245	Linecard	N	3	vcp-0
							5	vcp-1
5 (FPC 5)	Prsnt	BP0207452204	ex4200-48t	244	Linecard	N	4	vcp-0
							6	vcp-1
6 (FPC 6)	Prsnt	BP0207452222	ex4200-48t	243	Linecard	N	5	vcp-0
							7	vcp-1
7 (FPC 7)	Prsnt	BR0207432028	ex4200-24f	242	Linecard	N	6	vcp-0

```

8 vcp-1
8 (FPC 8) Prsnt BR0207431996 ex4200-24f 241 Linecard N 7 vcp-0
0 vcp-1

```

Member ID for next new member: 9 (FPC 9)

show virtual-chassis (EX8200 Virtual Chassis)

```

user@external-routing-engine> show virtual-chassis
Virtual Chassis ID: c806.0842.de51
Virtual Chassis Mode: Enabled

```

Member ID	Status	Serial No	Model	Mastership priority	Role	Neighbor List ID Interface
0 (FPC 0-15)	Prsnt	BA0908380001	ex8216	0	Linecard	8 vcp-0/0 8 vcp-0/1 1 vcp-4/0/4
1 (FPC 16-31)	Prsnt	BT0909411634	ex8208	0	Linecard	8 vcp-0/0 0 vcp-3/0/4
8 (FPC 128-143)	Prsnt	062009000021	ex-xre	128	Master	9 vcp-1/0 1 vcp-1/2 9 vcp-1/3 0 vcp-2/0 9 vcp-2/1 0 vcp-1/1
9 (FPC 144-159)	Prsnt	062009000022	ex-xre	128	Backup*	8 vcp-1/0 8 vcp-1/2 8 vcp-1/3 8 vcp-1/3

show virtual-chassis (Virtual Chassis Fabric)

```

user@switch> show virtual-chassis
Preprovisioned Virtual Chassis Fabric
Fabric ID: 0282.5fa0.3f08
Fabric Mode: Enabled

```

List	Member ID	Status	Serial No	Model	Mstr prio	Role	Mixed Route Mode	Neighbor Mode	ID
Interface	0 (FPC 0)	Prsnt	AB3112430001	qfx5100-48s	129	Master*	N	F	3
vcp-255/1/0									
vcp-255/1/1									2
vcp-255/1/2									4
vcp-255/1/3									4
1 (FPC 1)	Prsnt	AB3112230001	qfx5100-48s	129	Backup	N	F	3	
vcp-255/1/0									2
vcp-255/1/1									4
vcp-255/1/2									4
vcp-255/1/3									
2 (FPC 2)	Prsnt	AB3112460011	qfx5100-48s	0	Linecard	N	F	1	
vcp-255/1/0									0
vcp-255/1/1									

3 (FPC 3) Prsnt	AB3112460011 qfx5100-48s	0	Linecard	N	F	1
vcp-255/1/0						0
vcp-255/1/1						
4 (FPC 4) Prsnt	AB3112430011 qfx5100-48s	0	Linecard	N	F	1
vcp-255/1/0						0
vcp-255/1/1						

show virtual-chassis vc-path

Syntax	show virtual-chassis vc-path source-interface <i>interface-name</i> destination-interface <i>interface-name</i>
Release Information	Command introduced in Junos OS Release 9.6 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series.
Description	Show the forwarding path a packet takes when going from a source interface to a destination interface in a Virtual Chassis or VCF configuration.
Options	<p>source-interface <i>interface-name</i>—Name of the interface from which the packet originates in the Virtual Chassis or VCF</p> <p>destination-interface <i>interface-name</i>—Name of the interface to which the packet is being delivered in the Virtual Chassis or VCF</p>
Required Privilege Level	view
Related Documentation	<ul style="list-style-type: none"> • Monitoring the Virtual Chassis Status and Statistics on EX Series Virtual Chassis on page 58 • <i>Understanding EX Series Virtual Chassis Configuration</i> • <i>EX8200 Virtual Chassis Overview</i>
List of Sample Output	show virtual-chassis vc-path source-interface destination-interface on page 141
Output Fields	Table 19 on page 140 lists the output fields for the show virtual-chassis vc-path command. Output fields are listed in the approximate order in which they appear.

Table 19: show virtual-chassis vc-path Output Fields

Field Name	Field Description
Hop	The hop number along the path between the source and destination interfaces. The first hop entry (Hop 0) is the packet's source, intermediate hop information represents transitions through the members within the Virtual Chassis or VCF, and the last hop entry represents arrival at the packet's destination.
Member	The Virtual Chassis or VCF member ID of the switch that contains the Packet Forwarding Engine for each hop through which the packet passes.
PFE-Device	<p>The number of the Packet Forwarding Engine in each Virtual Chassis or VCF member through which a packet passes.</p> <p>The Packet Forwarding Engine in each row is the next hop of the preceding Packet Forwarding Engine, including intermediate transitions through members within the Virtual Chassis.</p>
Interface	The name of the interface through which the Packet Forwarding Engines are connected. The interface for the first hop (Hop 0) is always the source interface.

Sample Output

show virtual-chassis vc-path source-interface destination-interface

```
user@switch> show virtual-chassis vc-path source-interface ge-0/0/0 destination-interface
ge-1/0/1
vc-path from ge-0/0/0 to ge-1/0/1
Hop      Member    PFE-Device    Interface
0         0          1              ge-0/0/0
1         0          0              internal-1/24
2         1          3              vcp-0
3         1          4              ge-1/0/1
```

show virtual-chassis vc-port

Syntax	show virtual-chassis vc-port <all-members> <local> <member <i>member-id</i> >
Release Information	Command introduced in Junos OS Release 9.0 for EX Series switches. Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series. Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).
Description	Display the status of the Virtual Chassis ports (VCPs), including both the dedicated VCPs and the uplink ports configured as VCPs.
Options	<p>none—Display the operational status of all VCPs of the member switch where the command is issued.</p> <p>all-members—(Optional) Display the operational status of all VCPs on all members of the Virtual Chassis or VCF.</p> <p>local—(Optional) Display the operational status of the switch or external Routing Engine on which this command is entered.</p> <p>member <i>member-id</i>—(Optional) Display the operational status of all VCPs for the specified member of the Virtual Chassis or VCF.</p>
Required Privilege Level	view
Related Documentation	<ul style="list-style-type: none"> • show virtual-chassis vc-port statistics on page 146 • Monitoring the Virtual Chassis Status and Statistics on EX Series Virtual Chassis on page 58 • Verifying Virtual Chassis Ports in an EX8200 Virtual Chassis
List of Sample Output	show virtual-chassis vc-port (EX4200 Virtual Chassis) on page 144 show virtual-chassis vc-port (EX8200 Virtual Chassis) on page 144 show virtual-chassis vc-port all-members on page 145
Output Fields	Table 20 on page 142 lists the output fields for the show virtual-chassis vc-port command. Output fields are listed in the approximate order in which they appear.

Table 20: show virtual-chassis vc-port Output Fields

Field Name	Field Description
<i>fpcnumber</i>	The FPC number is the same as the member ID.

Table 20: show virtual-chassis vc-port Output Fields (*continued*)

Field Name	Field Description
Interface or PIC/Port	<p>VCP name.</p> <ul style="list-style-type: none"> The dedicated VCPs in an EX4200 or EX4500 Virtual Chassis are vcp-0 and vcp-1. The dedicated VCPs in an EX4550 Virtual Chassis are VCP-1/0, VCP-1/1, VCP-2/0, and VCP-2/1. Optical ports set as VCPs are named 1/0 and 1/1, representing the PIC number and the port number. The native VCP (port 0) on an XRE200 External Routing Engine in an EX8200 Virtual Chassis is named vcp-0. The VCPs on each Virtual Chassis Control Interface (VCCI) module in an XRE200 External Routing Engine are named using the vcp-slot-number/port-number convention; for instance, vcp-1/0. The VCPs on EX8200 member switches are named using the vcp-slot-number/pic-number/interface-number convention; for instance, vcp-3/0/2. A 255 as the first number in your port number indicates that your VCP is part of a Link Aggregation group (LAG) bundle. For instance, a display of vcp-255/1/0 indicates that the dedicated VCP named vcp-1/0 is part of a LAG bundle. A display of vcp-255/1/0 indicates that an uplink port that was previously named xe-0/1/0 is now part of a VCP LAG bundle.
Type	<p>Type of VCP:</p> <ul style="list-style-type: none"> Dedicated—The rear panel VCP on an EX4200, EX4500, or EX4550 switch, or any VCP link connected to an XRE200 External Routing Engine in an EX8200 Virtual Chassis. Configured—Optical port configured as a VCP. Auto-Configured—Optical port autoconfigured as a VCP. <p>See “Setting an Uplink Port on an EX Series Switch as a Virtual Chassis Port (CLI Procedure)” on page 44 or Setting a 10-Gigabit Ethernet Port as a Virtual Chassis Port in an EX8200 Virtual Chassis (CLI Procedure) for information about configuring VCPs.</p>
Trunk ID	<p>A positive-number ID assigned to a link aggregation group (LAG) formed by the Virtual Chassis. The trunk ID value is –1 if no trunk is formed. A LAG between uplink VCPs requires that the link speed be the same on connected interfaces and that at least two VCPs on one member be connected to at least two VCPs on the other member in an EX4200 or EX4500 Virtual Chassis.</p> <p>Dedicated VCP LAGs are assigned trunk IDs 1 and 2. Trunk IDs for LAGs formed with uplink VCPs therefore have values of 3 or greater.</p> <p>The trunk ID value changes if the link-adjacency state between LAG members changes; trunk membership is then allocated or deallocated.</p>
Status	<p>Interface status:</p> <ul style="list-style-type: none"> absent—Interface is not a VCP link. down—VCP link is down. up—VCP link is up.
Speed (mbps)	Speed of the interface in megabits per second.
Neighbor ID/Interface	The Virtual Chassis member ID and interface of a VCP on a member that is connected to the interface or PIC/Port field in the same row as this interface.

Sample Output

show virtual-chassis vc-port (EX4200 Virtual Chassis)

```
user@switch> show virtual-chassis vc-port
```

```
fpc0:
```

Interface or PIC / Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0	Dedicated	1	Up	32000	1	vcp-1
vcp-1	Dedicated	2	Up	32000	0	vcp-0
1/0	Auto-Configured	3	Up	1000	2	vcp-255/1/0
1/0	Auto-Configured	3	Up	1000	2	vcp-255/1/1

show virtual-chassis vc-port (EX8200 Virtual Chassis)

```
user@external-routing-engine> show virtual-chassis vc-port
```

```
member0:
```

Interface or Slot/PIC/Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0/0	Dedicated	-1	Up	1000	8	vcp-1/1
vcp-0/1	Dedicated	-1	Up	1000	8	vcp-2/0
4/0/4	Configured	-1	Up	10000	1	vcp-3/0/4
4/0/7	Configured	-1	Down	10000		
4/0/3	Configured		Absent			
4/0/2	Configured		Absent			
4/0/5	Configured		Absent			
4/0/6	Configured		Absent			
4/0/1	Configured		Absent			
4/0/0	Configured		Absent			

```
member1:
```

Interface or Slot/PIC/Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0/0	Dedicated	-1	Up	1000	8	vcp-1/2
3/0/0	Configured	-1	Down	10000		
3/0/1	Configured	-1	Down	10000		
3/0/4	Configured	-1	Up	10000	0	vcp-4/0/4
3/0/5	Configured		Absent			
4/0/5	Configured		Absent			
4/0/4	Configured		Absent			

```
member8:
```

Interface or Slot/PIC/Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0/0	Dedicated	-1	Down	1000		
vcp-1/0	Dedicated	-1	Up	1000	9	vcp-1/0
vcp-1/1	Dedicated	-1	Up	1000	0	vcp-0/0
vcp-1/2	Dedicated	-1	Up	1000	1	vcp-0/0
vcp-1/3	Dedicated	-1	Up	1000	9	vcp-1/3
vcp-2/0	Dedicated	-1	Up	1000	0	vcp-0/1
vcp-2/1	Dedicated	-1	Up	1000	9	vcp-1/2
vcp-2/2	Dedicated	-1	Down	1000		

```
vcp-2/3      Dedicated      -1   Down      1000
```

```
member9:
```

Interface or Slot/PIC/Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0/0	Dedicated	-1	Disabled	1000		
vcp-1/0	Dedicated	-1	Up	1000	8	vcp-1/0
vcp-1/1	Dedicated	-1	Down	1000		
vcp-1/2	Dedicated	-1	Up	1000	8	vcp-2/1
vcp-1/3	Dedicated	-1	Up	1000	8	vcp-1/3

show virtual-chassis vc-port all-members

```
user@switch> show virtual-chassis vc-port all-members
```

```
fpc0:
```

Interface or PIC / Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0	Dedicated	1	Up	32000	1	vcp-1
vcp-1	Dedicated	2	Up	32000	0	vcp-0
1/0	Auto-Configured	3	Up	1000	2	vcp-255/1/0
1/1	Auto-Configured	3	Up	1000	2	vcp-255/1/1

```
fpc1:
```

Interface or PIC / Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0	Dedicated	1	Up	32000	0	vcp-1
vcp-1	Dedicated	2	Up	32000	0	vcp-0
1/0	Auto-Configured	-1	Up	1000	3	vcp-255/1/0

```
fpc2:
```

Interface or PIC / Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0	Dedicated	1	Up	32000	3	vcp-1
vcp-1	Dedicated	2	Up	32000	3	vcp-0
1/0	Auto-Configured	3	Up	1000	0	vcp-255/1/0
1/1	Auto-Configured	3	Up	1000	0	vcp-255/1/1

```
fpc3:
```

Interface or PIC / Port	Type	Trunk ID	Status	Speed (mbps)	Neighbor ID	Interface
vcp-0	Dedicated	1	Up	32000	2	vcp-0
vcp-1	Dedicated	2	Up	32000	2	vcp-1
1/0	Auto-Configured	-1	Up	1000	1	vcp-255/1/0

show virtual-chassis vc-port statistics

Syntax	<pre>show virtual-chassis vc-port statistics <all-members> <brief detail extensive > <interface-name> <local> <member member-id></pre>
Release Information	<p>Command introduced in Junos OS Release 9.0 for EX Series switches.</p> <p>The options all-members, brief, detail, extensive, and local were added in Junos OS Release 9.3 for EX Series switches.</p> <p>Command introduced in Junos OS Release 13.2X50-D15 for the QFX Series.</p> <p>Command introduced in Junos OS Release 13.2X51-D20 for Virtual Chassis Fabric (VCF).</p>
Description	Display the traffic statistics collected on Virtual Chassis ports (VCPs).
Options	<p>none—Display traffic statistics for VCPs of all members of a Virtual Chassis or VCF.</p> <p>brief detail extensive—(Optional) Display the specified level of output. Using the brief option is equivalent to entering the command with no options (the default). The detail and extensive options provide identical displays.</p> <p>all-members—(Optional) Display traffic statistics for VCPs of all members of a Virtual Chassis or VCF.</p> <p>interface-name—(Optional) Display traffic statistics for the specified VCP.</p> <p>local—(Optional) Display traffic statistics for VCPs on the switch or external Routing Engine on which this command is entered.</p> <p>member member-id—(Optional) Display traffic statistics for VCPs on the specified member of a Virtual Chassis or VCF.</p>
Required Privilege Level	view
Related Documentation	<ul style="list-style-type: none">• clear virtual-chassis vc-port statistics on page 96• show virtual-chassis vc-port on page 142• Monitoring the Virtual Chassis Status and Statistics on EX Series Virtual Chassis on page 58• Verifying Virtual Chassis Ports in an EX8200 Virtual Chassis
List of Sample Output	<p>show virtual-chassis vc-port statistics on page 149</p> <p>show virtual-chassis vc-port statistics (EX8200 Virtual Chassis) on page 150</p> <p>show virtual-chassis vc-port statistics brief on page 150</p> <p>show virtual-chassis vc-port statistics extensive on page 150</p> <p>show virtual-chassis vc-port statistics member 0 on page 152</p>

Output Fields Table 21 on page 147 lists the output fields for the **show virtual-chassis vc-port statistics** command. Output fields are listed in the approximate order in which they appear.

Table 21: show virtual-chassis vc-port statistics Output Fields

Field Name	Field Description	Level of Output
fpcnumber	(All Virtual Chassis except EX8200 Virtual Chassis. VCF) ID of the Virtual Chassis member. The FPC number is the same as the member ID.	All levels
member number	(EX8200 Virtual Chassis only) Member ID of the Virtual Chassis member.	All levels
Interface	VCP name.	brief
Input Octets/Packets	Number of octets and packets received on the VCP.	brief, member, none
Output Octets/Packets	Number of octets and packets transmitted on the VCP.	brief, member, none
master: number	Member ID of the master Routing Engine.	All levels
Port	VCP for which RX (Receive) statistics, TX (Transmit) statistics, or both are reported by the VCP subsystem during a sampling interval—since the statistics counter was last cleared.	detail, extensive
Total octets	Total number of octets received and transmitted on the VCP.	detail, extensive
Total packets	Total number of packets received and transmitted on the VCP.	detail, extensive
Unicast packets	Number of unicast packets received and transmitted on the VCP.	detail, extensive
Broadcast packets	Number of broadcast packets received and transmitted on the VCP.	detail, extensive
Multicast packets	Number of multicast packets received and transmitted on the VCP.	detail, extensive
MAC control frames	Number of media access control (MAC) control frames received and transmitted on the VCP.	detail, extensive

Table 21: show virtual-chassis vc-port statistics Output Fields (*continued*)

Field Name	Field Description	Level of Output
CRC alignment errors	<p>Number of packets received on the VCP that had a length—excluding framing bits, but including frame check sequence (FCS) octets—of between 64 and 1518 octets, inclusive, and had one of the following errors:</p> <ul style="list-style-type: none"> Invalid FCS with an integral number of octets (FCS error) Invalid FCS with a nonintegral number of octets (alignment error) 	detail, extensive
Oversize packets	Number of packets received on the VCP that were longer than 1518 octets (excluding framing bits, but including FCS octets) but were otherwise well formed.	detail, extensive
Undersize packets	Number of packets received on the VCP that were shorter than 64 octets (excluding framing bits but including FCS octets) and were otherwise well formed..	detail, extensive
Jabber packets	<p>Number of packets received on the VCP that were longer than 1518 octets—excluding framing bits, but including FCS octets—and that had either an FCS error or an alignment error.</p> <p>NOTE: This definition of <i>jabber</i> is different from the definition in IEEE-802.3 section 8.2.1.5 (10Base5) and section 10.3.1.4 (10Base2). These documents define <i>jabber</i> as the condition in which any packet exceeds 20 ms. The allowed range to detect jabber is between 20 ms and 150 ms.</p>	detail, extensive
Fragments received	<p>Number of packets received on the VCP that were shorter than 64 octets (excluding framing bits, but including FCS octets), and had either an FCS error or an alignment error.</p> <p>Fragment frames normally increment because both runs (which are normal occurrences caused by collisions) and noise hits are counted.</p>	detail, extensive
Ifout errors	Number of outbound packets received on the VCP that could not be transmitted because of errors.	detail, extensive
Packet drop events	Number of outbound packets received on the VCP that were dropped, rather than being encapsulated and sent out of the switch as fragments. The packet drop counter is incremented if a temporary shortage of packet memory causes packet fragmentation to fail.	detail, extensive
64 octets frames	Number of packets received on the VCP (including invalid packets) that were 64 octets in length (excluding framing bits, but including FCS octets).	detail, extensive

Table 21: show virtual-chassis vc-port statistics Output Fields (*continued*)

Field Name	Field Description	Level of Output
65–127 octets frames	Number of packets received on the VCP (including invalid packets) that were between 65 and 127 octets in length, inclusive (excluding framing bits, but including FCS octets).	detail, extensive
128–255 octets frames	Number of packets received on the VCP (including invalid packets) that were between 128 and 255 octets in length, inclusive (excluding framing bits, but including FCS octets).	detail, extensive
256–511 octets frames	Number of packets received on the VCP (including invalid packets) that were between 256 and 511 octets in length, inclusive (excluding framing bits, but including FCS octets).	detail, extensive
512–1023 octets frames	Number of packets received on the VCP (including invalid packets) that were between 512 and 1023 octets in length, inclusive (excluding framing bits, but including FCS octets).	detail, extensive
1024–1518 octets frames	Number of packets received on the VCP (including invalid packets) that were between 1024 and 1518 octets in length, inclusive (excluding framing bits, but including FCS octets).	detail, extensive
Rate packets per second	Number of packets per second received and transmitted on the VCP.	detail, extensive
Rate bytes per second	Number of bytes per second received and transmitted on the VCP.	detail, extensive

Sample Output

show virtual-chassis vc-port statistics

```
user@switch> show virtual-chassis vc-port statistics
fpc0:
```

```
-----
Interface          Input  Octets/Packets      Output  Octets/Packets
internal-0/24       0      / 0                0      / 0
internal-0/25       0      / 0                0      / 0
internal-1/26       0      / 0                0      / 0
internal-1/27       0      / 0                0      / 0
vcp-0               0      / 0                0      / 0
vcp-1               0      / 0                0      / 0
internal-0/26       0      / 0                0      / 0
internal-0/27       0      / 0                0      / 0
internal-1/24       0      / 0                0      / 0
internal-1/25       0      / 0                0      / 0
```

```
{master:0}
```

show virtual-chassis vc-port statistics (EX8200 Virtual Chassis)

```

user@external-routing-engine> show virtual-chassis vc-port statistics
member0:
-----
Interface          Input Octets/Packets      Output Octets/Packets
vcp-4/0/4           43171238 / 48152          47687133 / 51891
vcp-4/0/7           0 / 0                     0 / 0

member1:
-----
Interface          Input Octets/Packets      Output Octets/Packets
vcp-3/0/0           0 / 0                     0 / 0
vcp-3/0/1           0 / 0                     0 / 0
vcp-3/0/4           47695376 / 51899          43180556 / 48160

member8:
-----

member9:
-----

```

show virtual-chassis vc-port statistics brief

```

user@switch> show virtual-chassis vc-port statistics brief
fpc0:
-----
Interface          Input Octets/Packets      Output Octets/Packets
internal-0/24       0 / 0                     0 / 0
internal-0/25       0 / 0                     0 / 0
internal-1/26       0 / 0                     0 / 0
internal-1/27       0 / 0                     0 / 0
vcp-0               0 / 0                     0 / 0
vcp-1               0 / 0                     0 / 0
internal-0/26       0 / 0                     0 / 0
internal-0/27       0 / 0                     0 / 0
internal-1/24       0 / 0                     0 / 0
internal-1/25       0 / 0                     0 / 0

{master:0}

```

show virtual-chassis vc-port statistics extensive

```

user@switch> show virtual-chassis vc-port statistics extensive
fpc0:
-----

```

	RX	TX
Port: internal-0/24		
Total octets:	0	0
Total packets:	0	0
Unicast packets:	0	0
Broadcast packets:	0	0
Multicast packets:	0	0
MAC control frames:	0	0
CRC alignment errors:	0	
Oversize packets:	0	
Undersize packets:	0	
Jabber packets:	0	
Fragments received:	0	

```

Ifout errors:          0
Packet drop events:    0
64      octets frames: 0
65-127   octets frames: 0
128-255   octets frames: 0
256-511   octets frames: 0
512-1023  octets frames: 0
1024-1518 octets frames: 0
Rate packets per second: 0          0
Rate bytes per second:   0          0

...

Port: vcp-0
Total octets:          0          0
Total packets:         0          0
Unicast packets:       0          0
Broadcast packets:     0          0
Multicast packets:     0          0
MAC control frames:    0          0
CRC alignment errors:  0
Oversize packets:     0
Undersize packets:     0
Jabber packets:        0
Fragments received:    0
Ifout errors:          0
Packet drop events:    0
64      octets frames: 0
65-127   octets frames: 0
128-255   octets frames: 0
256-511   octets frames: 0
512-1023  octets frames: 0
1024-1518 octets frames: 0
Rate packets per second: 0          0
Rate bytes per second:   0          0

Port: vcp-1
Total octets:          0          0
Total packets:         0          0
Unicast packets:       0          0
Broadcast packets:     0          0
Multicast packets:     0          0
MAC control frames:    0          0
CRC alignment errors:  0
Oversize packets:     0
Undersize packets:     0
Jabber packets:        0
Fragments received:    0
Ifout errors:          0
Packet drop events:    0
64      octets frames: 0
65-127   octets frames: 0
128-255   octets frames: 0
256-511   octets frames: 0
512-1023  octets frames: 0
1024-1518 octets frames: 0
Rate packets per second: 0          0
Rate bytes per second:   0          0

...

```

```
{master:0}
```

show virtual-chassis vc-port statistics member 0

```
user@switch>show virtual-chassis vc-port statistics member 0  
fpc0:
```

```
-----  
Interface           Input  Octets/Packets      Output  Octets/Packets  
internal-0/24        0           / 0                0           / 0  
internal-0/25        0           / 0                0           / 0  
internal-1/26        0           / 0                0           / 0  
internal-1/27        0           / 0                0           / 0  
vcp-0                0           / 0                0           / 0  
vcp-1                0           / 0                0           / 0  
internal-0/26        0           / 0                0           / 0  
internal-0/27        0           / 0                0           / 0  
internal-1/24        0           / 0                0           / 0  
internal-1/25        0           / 0                0           / 0
```

```
{master:0}
```