

## Setting an Uplink Port as a Virtual Chassis Port (CLI Procedure)

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You can interconnect EX 4200 switches that are beyond the reach of the Virtual Chassis cables as members of a Virtual Chassis configuration by installing the optional 10-Gbps uplink module (EX-UM-2XFP) or 1-Gbps uplink module (EX-UM-4SFP) and connecting the uplink ports. To use the uplink ports for interconnecting member switches, you must explicitly set the uplink ports as VCPs.



**NOTE:** You can use either a 10-Gbps Ethernet uplink port (EX-UM-2XFP) or a 1-Gbps Ethernet uplink port (EX\_UM-4SFP) as a VCP interface. When an uplink port is set as a VCP interface, it cannot be used for any other purpose. The EX-UM-2XP uplink module has two 10-Gbps ports; the EX-UM-4SFP has four 1-Gbps ports. You can set one port as a VCP interface and configure the other port in trunk mode as an uplink to a distribution switch.

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Before you set an uplink as a VCP:

1. Install the uplink module (EX-UM-2XFP or EX-UM-4SFP) in the member switches that you want to interconnect.
2. Power on and connect to the switch that you plan to designate as the master of the Virtual Chassis configuration.



**NOTE:** Do not power on the other switches at this point.

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3. Run EZ Setup on the switch that you are configuring to be the master. Follow the prompts to specify the host name and other identification, time zone, and network properties. See *Connecting and Configuring an EX-series Switch (CLI Procedure)* or *Connecting and Configuring an EX-series Switch (J-Web Procedure)* for details. The properties that you specify for the master apply to the entire Virtual Chassis configuration, including all the member switches that you later interconnect with the master.
  4. If you want to configure and manage the Virtual Chassis configuration remotely, specify the VME global management interface. You can configure the VME global management interface when you are setting up the master or you can do it after completing the other configuration steps for the Virtual Chassis. See *Configuring the Virtual Management Ethernet Interface for Global Management of a Virtual Chassis (CLI Procedure)*.
  5. Configure mastership of the Virtual Chassis using either the nonprovisioned or preprovisioned configuration. See *Configuring Mastership of the Virtual Chassis (CLI Procedure)* for details.



**NOTE:** A multimember Virtual Chassis configuration has two Routing Engines, one in the master and the other in the backup. Therefore, we recommend that you always use `commit synchronize` rather than simply `commit` to save configuration changes made for a Virtual Chassis configuration. This ensures that the configuration changes are saved in both Routing Engines.

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To interconnect a Virtual Chassis configuration across longer distances, such as wiring closets, you need to:

- Prepare the existing Virtual Chassis configuration for interconnecting with a potential member switch that is beyond the reach of a Virtual Chassis cable by setting at least one uplink VCP on an existing member of Virtual Chassis configuration.
  - Prepare the potential member switch for interconnecting with the existing Virtual Chassis configuration by setting at least one uplink VCP on the standalone switch.
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**NOTE:** We recommend that you set two uplink VCPs within each wiring closet for redundancy.

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This topic describes:

1. Setting an Uplink VCP Between Two Member Switches on page 2
2. Setting an Uplink VCP on a Standalone Switch on page 3

## Setting an Uplink VCP Between Two Member Switches

Set an uplink port of a Virtual Chassis member as a VCP by executing the operational command `request virtual-chassis vc-port` .

To set the uplink ports for the local member switch (for example, member 0) and for a different member switch (for example, member 1) to function as VCPs:

1. Set one uplink port of member 0 as a VCP interface. You do not need to specify the `member member-id` option, because the command applies by default on the member where it is executed.

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

2. Set one uplink port of member 1 as VCP interface.

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

This example includes the member `member-id` option, because it is executed on a different member switch than the local member switch.

## Setting an Uplink VCP on a Standalone Switch

To set an uplink VCP on a standalone switch, first power on the switch. You must set an uplink port on the standalone switch as a VCP prior to physically interconnecting the switch with the existing Virtual Chassis configuration. Otherwise, the master cannot detect that the switch is a member of the Virtual Chassis configuration.

To set one uplink VCP on the potential member (SWA-2), which is currently operating as a standalone switch:

1. Power on the standalone switch.
2. Set one uplink port as a VCP interface. You do not need to specify the `member member-id` option, because the command applies by default on the member where it is executed.

```
user@SWA-2> request virtual-chassis vc-port set pic-slot 1 port 0
```



**NOTE:** If you do specify the `member member-id` option, use member ID 0. Because the switch is not yet interconnected with the other members of the Virtual Chassis configuration, its current member ID is 0. Its member ID will change when it is interconnected with the Virtual Chassis configuration. It does not impact the functioning of the uplink VCP that its VCP interface is set with 0 as the member ID. The VCP interface has significance only on the local switch.

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3. After you have set the uplink VCP on the standalone switch, physically interconnect its uplink port with the VCP uplink ports of the members in the existing Virtual Chassis configuration.
  4. The new member switch reboots and joins the now expanded Virtual Chassis configuration with a different member ID.



**NOTE:** The setting for the new member switch's uplink VCP remains intact and is not affected by the change of member ID.

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5. If you have additional members in the second wiring closet, set a redundant VCP uplink on another member switch by issuing the `request virtual-chassis vc-port` command.

- Related Topics**
- Configuring a Virtual Chassis (CLI Procedure)
  - Configuring a Virtual Chassis (J-Web Procedure)
  - Example: Configuring a Virtual Chassis Interconnected Across Multiple Wiring Closets
  - Example: Configuring a Virtual Chassis with a Preprovisioned Configuration File
  - Monitoring Virtual Chassis Configuration Status and Statistics

