

Configuring a Virtual Chassis (CLI Procedure)

To take advantage of the scalability features of EX 4200 switches, you can configure a Virtual Chassis that includes up to 10 member switches. You can interconnect the member switches using the dedicated Virtual Chassis ports (VCPs) on the back of the switch. You do not have to configure the interface for the dedicated VCPs. If you want to interconnect member switches that are located in different racks or wiring closets, interconnect them using uplinks configured as VCP interfaces. See *Setting an Uplink Module Port as a Virtual Chassis Port (CLI Procedure)*.



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. This ensures that the configuration changes are saved in both Routing Engines.

A Virtual Chassis can be configured with either:

- preprovisioned configuration—Allows you to deterministically control the member ID and role assigned to a member switch by tying it to its serial number.
- nonprovisioned configuration—The master sequentially assigns a member ID to other member switches. The role is determined by the mastership priority value and other factors in the master election algorithm.
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Configuring a Virtual Chassis with a Preprovisioned Configuration File

To configure a Virtual Chassis using a preprovisioned configuration:

1. Make a list of the serial numbers of all the switches to be connected in a Virtual Chassis configuration.
2. Note the desired role (**routing-engine** or **linecard**) of each switch. If you configure the member with a **routing-engine** role, it is eligible to function as a master or backup. If you configure the member with a **linecard** role, it is not eligible to become a master or backup.
3. Interconnect the member switches using the dedicated VCPs on the rear panel of switches. See *Connecting a Virtual Chassis Cable to an EX4200 Switch*.



NOTE: Arrange the switches in sequence, either from top to bottom or from bottom to top (0–9).

4. Power on only the switch that you plan to use as the master switch (SWA-0). Do not power on the other switches at this time.

5. Run the EZ Setup program on SWA-0, specifying the identification parameters. See Connecting and Configuring an EX Series Switch (CLI Procedure) for details.



NOTE: The properties that you specify for SWA-0 apply to the entire Virtual Chassis configuration, including all the member listed in the preprovisioned configuration file.

6. Configure SWA-0 with the virtual management Ethernet (VME) interface for out-of-band management of the Virtual Chassis configuration, if desired.

```
[edit]
user@SWA-0# set interfaces vme unit 0 family inet address /ip-address/mask/
```

7. Specify the preprovisioned configuration mode:

```
[edit virtual-chassis]
user@SWA-0# set preprovisioned
```

8. Specify all the members that you want to included in the Virtual Chassis configuration, listing each switch's serial number with the desired member ID and the desired role:

```
[edit virtual-chassis]
user@SWA-0# set member 0 serial-number abc123 role routing-engine
user@SWA-0# set member 1 serial-number def456 role linecard
user@SWA-0# set member 2 serial-number ghi789 role linecard
user@SWA-0# set member 3 serial-number jkl012 role linecard
user@SWA-0# set member 4 serial-number mno345 role linecard
user@SWA-0# set member 5 serial-number pqr678 role routing-engine
user@SWA-0# set member 6 serial-number stu901 role linecard
user@SWA-0# set member 7 serial-number vwx234 role linecard
user@SWA-0# set member 8 serial-number yza567 role linecard
user@SWA-0# set member 9 serial-number bcd890 role linecard
```

9. Power on the member switches.



NOTE: You cannot modify the mastership-priority when you are using a preprovisioned configuration. The mastership priority values are generated automatically and controlled by the role that is assigned to the member switch in the configuration file. The two routing engines are assigned the same mastership priority value. However, the member that was powered on first has higher prioritization according to the master election algorithm. See Understanding How the Master in a Virtual Chassis Configuration Is Elected.

Configuring a Virtual Chassis with a Nonprovisioned Configuration File

To configure the Virtual Chassis using a nonprovisioned configuration:

1. Interconnect the member switches using the dedicated VCPs on the rear panel of switches. See Connecting a Virtual Chassis Cable to an EX4200 Switch.



NOTE: Arrange the switches in sequence, either from top to bottom or from bottom to top (0–9).

2. Power on only the switch that you plan to use as the master switch (SWA-0). Do not power on the other switches at this time.
3. Run the EZ Setup program on SWA-0, specifying the identification parameters. See Connecting and Configuring an EX Series Switch (CLI Procedure) for details.



NOTE: The properties that you specify for SWA-0 apply to the entire Virtual Chassis configuration, including all the members interconnected through VCPs..

4. Configure SWA-0 with the virtual management Ethernet (VME) interface for out-of-band management of the Virtual Chassis configuration, if desired.

```
[edit]
user@SWA-0# set interfaces vme unit 0 family inet address /ip-address/mask/
```

5. Configure mastership priority for the master, backup, and other members, if desired:

```
[edit virtual-chassis]
user@SWA-0# set member 0 mastership-priority 255
user@SWA-0# set member 5 mastership-priority 255
```

6. Power on the member switches in sequential order, one by one.



NOTE: If you do not edit the Virtual Chassis configuration file, a nonprovisioned configuration is generated by default. The mastership priority value for each member switch is **128**. The master role is selected by default. You can change the role that is performed by the members by modifying the mastership-priority. See Configuring Mastership of the Virtual Chassis (CLI Procedure). We recommend that you specify the same mastership priority value for the desired master and backup members. We have assigned the highest possible mastership priority to two members. However, the member that was powered on first has higher prioritization according to the master election algorithm. See Understanding How the Master in a Virtual Chassis Configuration Is Elected. We have allowed the other members to use the default mastership priority, which qualifies them to function in the role of linecard.



NOTE: If you want to change the member ID that the master has assigned to a member switch, use the request virtual-chassis renumber command.

- Related Topics**
- Configuring a Virtual Chassis (J-Web Procedure)
 - Configuring Mastership of the Virtual Chassis (CLI Procedure)
 - Setting an Uplink Module Port as a Virtual Chassis Port (CLI Procedure)
 - Monitoring Virtual Chassis Configuration Status and Statistics

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