

# UCS Upstream Port Channel Configuration Example



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## Introduction

This document describes how to configure an upstream port channel on Cisco UCS Servers.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of port channels before you attempt this configuration.

### Components Used

The information in this document is based on Cisco Unified Computing Systems (UCS).

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

## Configure

UCS port channel configuration is statically set to Link Aggregation Control Protocol (LACP) mode active. This configuration cannot be modified; therefore, all upstream port-channel configurations must adhere to LACP mode active as well. Alternatively, you can configure the upstream switchports for LACP mode passive.

### CLI Configuration

Here is a sample of the UCS interface configuration that cannot be modified:

```
UCS1-B(nxos)# show run interface eth1/19
```

```
!Command: show running-config interface Ethernet1/19
!Time: Fri Oct 12 20:25:59 2012
```

```
version 5.0(3)N2(2.11)

interface Ethernet1/19
  description U: Uplink
  pinning border
  switchport mode trunk
  switchport trunk allowed vlan 1,107,110-111,115,119,
    168,175,179,183,200-201,279,283,379,383,555-556
  channel-group 100 mode active
  no shutdown
```

Here is the port-channel interface configuration:

```
UCS1-B(nxos)# show run interface po100
```

```
!Command: show running-config interface port-channel100
!Time: Fri Oct 12 20:21:19 2012
```

```
version 5.0(3)N2(2.11)

interface port-channel100
  description U: Uplink
  switchport mode trunk
  pinning border
  switchport trunk allowed vlan 1,107,110-111,115,119,
    168,175,179,183,200-201,279,283,379,383,555-556
  speed 10000
```

You can run the **show interface** command on the port channel in order to show the port-channel members:

```
UCS1-B(nxos)# show interface po100
```

```
port-channel100 is up
  Hardware: Port-Channel, address: 000d.eccd.665a (bia 000d.eccd.665a)
  Description: U: Uplink
  MTU 1500 bytes, BW 20000000 Kbit, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA
  Port mode is trunk
  full-duplex, 10 Gb/s
  Beacon is turned off
  Input flow-control is off, output flow-control is off
  Switchport monitor is off
  EtherType is 0x8100
  Members in this channel: Eth1/19, Eth1/20
```

The upstream port channel must be LACP to match the UCS configuration. Other configurations can be present, but (at a minimum) you should see this configuration:

```
5k# show run int eth1/3
```

```
!Command: show running-config interface Ethernet1/3
!Time: Sat Oct 13 00:30:51 2012
```

```
version 5.1(3)N2(1)

interface Ethernet1/3
  switchport mode trunk
  spanning-tree port type edge trunk
  channel-group 100 mode active
```

Notice *spanning-tree port type edge trunk* on NXOS devices. This configuration ensures that, if a link flaps, the port immediately comes back up. In a failure situation, it is important that the upstream switch ports do not move through STP states, which prolong downtime. For more information on this command, refer to *spanning-tree port type edge*.

The Cisco IOS equivalent of this command is *spanning-tree portfast trunk*.

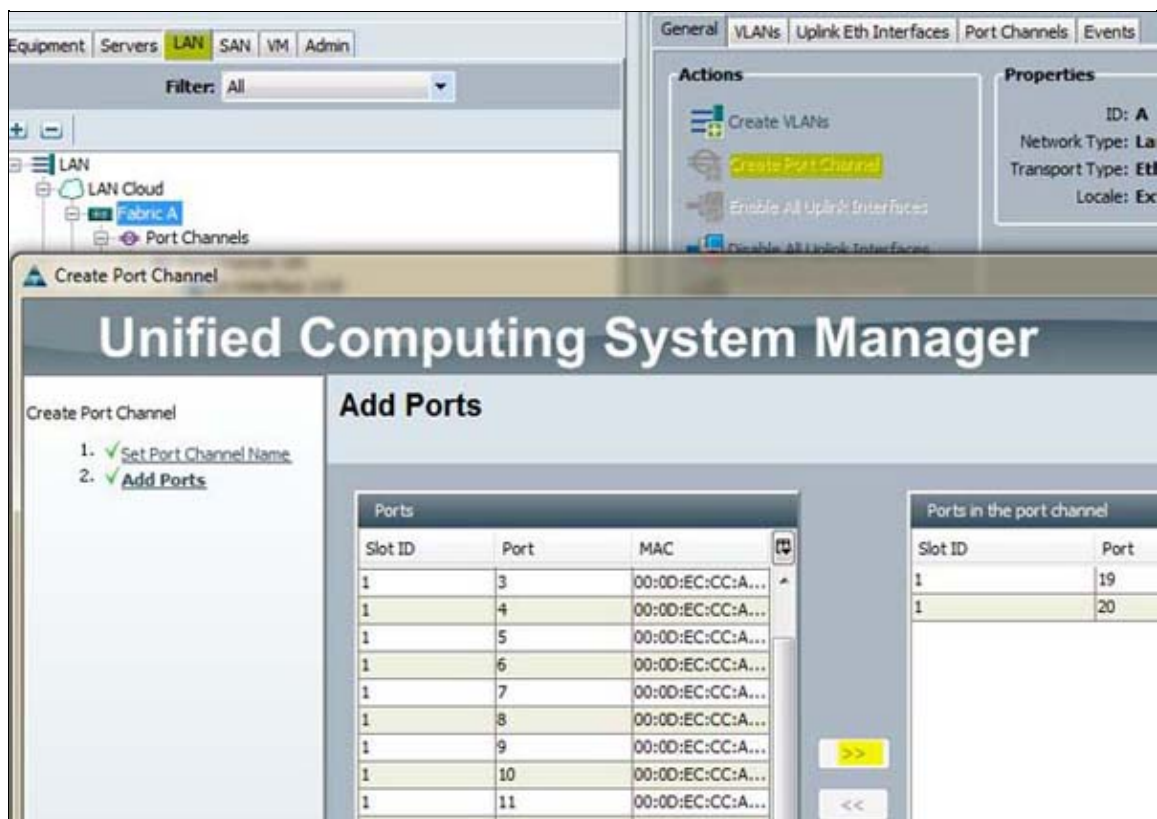
Refer to these documents for more information:

- Catalyst 3550 Multilayer Switch Software Configuration Guide
- STP may cause temporary loss of network connectivity when a failover or failback event occurs (1003804)

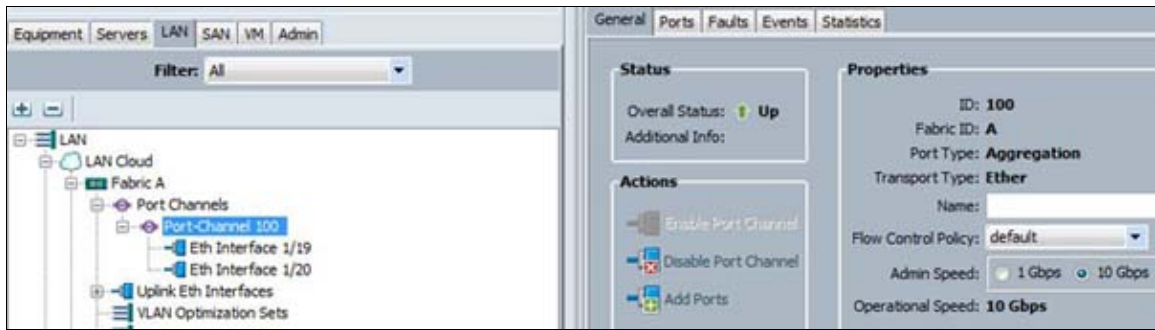
**Note:** Use the Command Lookup Tool (registered customers only) in order to obtain more information on the commands used in this section.

## GUI Configuration

1. Create the Port Channel interface.



2. Select the ports and click the double arrow to add them to the Port Channel.
3. After you click Finish, the port channel appears as down while LACP negotiates with the upstream switch.



If the upstream switch is configured properly, the overall status moves to an Up state.

## Troubleshoot

- A port channel will not come up if the speed is different on both sides. This is a common misconfiguration.
- You might need to bring up all links individually first and verify neighboring ports. Use *show cdp neighbor* to verify neighboring ports.