

Troubleshoot LACP Port-Channel Failure in Firewall Cluster Environment

Issue

Port-channel1 on an FTD appliance showed an operational status as Failed, with no LACP PDUs being sent or received. The device was part of an FTD cluster and Port-channel1 was used as a data interface, resulting in traffic impact when the port-channel went down.

The specific symptoms observed included:

- LACP neighbor information showing Partner System ID as 0,0-0-0-0-0-0 with Port Number 0x0.
- Partner Oper Key and Port State showing as 0x0.
- LACP counters not incrementing on the firewall chassis.
- Interfaces showing "suspended (no LACP PDU)" status.
- On the adjacent switch, only the LACP Sent counters increase. The LACP Recv counters do not increase.

The LACP neighbor output from the affected device showed:

```
<#root>
```

```
device(fxos)#
```

```
show lacp neighbor
```

```
Flags: S - Device is sending Slow LACPDUs F - Device is sending Fast LACPDUs  
A - Device is in Active mode P - Device is in Passive mode
```

```
port-channel1 neighbors
```

```
Partner's information
```

Port	Partner System ID	Partner Port Number	Age	Partner Flags
Eth1/2				

```
0,0-0-0-0-0-0
```

```
0x0
```

```

5022089      SP
LACP Partner      Partner
Port Priority      Oper Key
0              0x0
Partner's information      Partner
Port            System ID      Port Number      Age      Partner
Eth1/3                                     Flags

0,0-0-0-0-0-0

```

0x0

```

4895677      SP
LACP Partner      Partner
Port Priority      Oper Key
0              0x0
Partner
Port State
0x0

```

On the firewall, the LACP Sent/Recv counters do not increase for the port-channel members:

```
<#root>
```

```
device#
```

```
connect fxos
```

```
device(fxos)#
```

```
show lacp counters
```

Port	LACPDUs		Marker		Marker Response		LACPDUs	
	Sent	Recv	Sent	Recv	Sent	Recv	Pkts	Err
port-channel1								
Ethernet1/4	11413	13114	0	0	0	0	0	0

```
<-- the LACP counters do not increase
```

The port-channel interface and its subinterfaces are in down/down state:

```
<#root>
```

```
#
```

```
show interface ip brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
Internal-Contro10/0	unassigned	YES	unset	up	up
Internal-Data0/0	unassigned	YES	unset	up	up
Internal-Data0/1	unassigned	YES	unset	up	up
Internal-Data0/2	169.254.1.1	YES	unset	up	up
Internal-Data0/3	unassigned	YES	unset	up	up
Internal-Data0/4	unassigned	YES	unset	down	up
Port-channel1	unassigned	YES	unset		

down down

Port-channel1.90 192.0.2.15 YES CONFIG

down down

Port-channel1.102 192.0.2.130 YES CONFIG

down down

...

Switch-side logs indicated the switch was transmitting LACP but not receiving partner LACP PDUs, with ports being suspended:

<#root>

Apr 2 18:44:20.614: %LINEPROTO-5-UPDOWN: Line protocol on Interface TwentyFiveGigE2/0/25, changed state to down

Apr 2 18:44:25.452: %ETC-5-L3DONTBNL2: Twe2/0/25

suspended

: LACP currently not enabled on the remote port.

Apr 2 18:44:36.318: %ETC-5-L3DONTBNL2: Twe2/0/25

suspended

: LACP currently not enabled on the remote port.

Apr 3 02:17:06.798: %LINK-5-UPDOWN: Interface TwentyFiveGigE2/0/25, changed state to down

Apr 3 02:17:26.722: %LINK-5-UPDOWN: Interface TwentyFiveGigE2/0/25, changed state to up

Apr 3 02:17:35.915: %ETC-5-L3DONTBNL2: Twe2/0/25 suspended: LACP currently not enabled on the remote port

Apr 3 02:23:22.255: %LINK-5-UPDOWN: Interface TwentyFiveGigE2/0/25, changed state to down

Apr 3 02:23:43.886: %LINK-5-UPDOWN: Interface TwentyFiveGigE2/0/25, changed state to up

Apr 3 02:23:53.808: %ETC-5-L3DONTBNL2: Twe2/0/25 suspended: LACP currently not enabled on the remote port

Environment

- Software version: FTD 7.6.2. Other software versions, including ASA, can be also affected.
- FTD cluster configuration with data interfaces using a Port-channel.
- LACP-enabled port-channel connecting to upstream switch infrastructure.

Resolution

The resolution involved identifying that the affected FTD unit had left the cluster due to a Port-channel interface health-check failure. When clustering was disabled on the unit, all data interfaces were shut down by design, which stopped LACP PDUs and caused switch-side suspension and traffic impact.

Diagnostic Steps Performed

Step 1: Collect debug and support bundles from both Cisco Firepower device and upstream switch

Multiple troubleshooting archives, LACP debug files, core files, and TS (troubleshooting) files were collected from the FXOS chassis for analysis.

Step 2: Validate switch behavior and LACP state

Switch engineer confirmed the switch was sending LACP PDUs but not receiving partner PDUs from the Firepower device.

Step 3: Analyze LACP internal state transitions

Analysis showed interfaces moved into a suspended state due to missing partner PDUs, with LACP counters not incrementing.



Tip: Check the '**show cluster history**' command output and the firewall LINA syslogs to determine the reason of the cluster failure.

In this example, the device quit the cluster due to data interface failure:

<#root>

```
#
```

```
show cluster history
```

```
CONTROL_NODE          CONTROL_NODE          Event: Control node unit-1-1 is quitting
                        due to interface health check
                        failure on Port-channel1,
                        1 times. Rejoin will be attempted
                        after 5 min.

20:44:31 CEST Apr 2 2026
CONTROL_NODE          DISABLED              Client progression done
```

Recovery Procedure

Step 1: Re-enable clustering on the affected FTD unit

```
<#root>
```

```
#
```

```
cluster enable
```

This command caused the unit to rejoin the cluster, bring data interfaces up, resume LACP PDUs, and restore Port-channel1 functionality.

Step 2: Verify LACP recovery

After re-enabling clustering, LACP PDUs resumed and Port-channel1 returned to normal operation on both the firewall and switch sides.

Cause

The root cause was a Port-channel interface health-check failure that caused the FTD unit to leave the cluster. When clustering is disabled on an FTD unit, all data interfaces are administratively shut down by design, which stops LACP PDU transmission and causes the upstream switch to suspend the port-channel interfaces.

This behavior is expected.

Cisco bug ID CSCwo09449 was filed to enhance the serviceability of the product.

Related Content

- Cisco Bug ID [CSCwo09449](#) - FXOS: stale TX and RX LACP counters and suspended data port-channels when clustering is disabled