# Contents

# Introduction

The Cisco Network Convergence System (NCS) 6K may report parity errors on the fabric cards from the switch fabric element driver (sfe_driver) process as per the below log message. However, from the log message, it is unclear which fabric card is experiencing the parity error.  In addition, there can be further confusion because the log message is reported by the Route Processor (RP).

# Solution

To determine the fabric card experiencing the parity errors we need to follow the below steps.

Step 1. Obtain the chassis type and rack number from the log message.

The beginning of the log message provides the information.

Format: X/Y/ADMIN0

- X indicates chassis type and rack number.
  F# indicates the chassis type is Fabric Chassis (FC).  The number indicates the FC rack number.Only a number indicates the chassis type is a Line Card Chassis (LCC).  The number indicates the LCC rack number.
- Y indicates processor type (not needed for this procedure, provided only as a reference).  Switch Controller (SC) only exists on the FC.RP only exists on the LCC.

e.g.

0/RP0/ADMIN0 indicates LCC zero.

2/RP1/ADMIN0 indicates LCC two.

F0/SC0/ADMIN0 indicates FC zero.


Step 2. Obtain the sfe number from the log message.  It is in square brackets after sfe, not after sfe_driver.

e.g.

From the log message:

0/RP0/ADMIN0:Jun 28 10:48:54.132 UTC: sfe_driver[2526]: %PLATFORM-CIH-5-ASIC_ERROR :sfe[15]: A parity error has occurred causing packet drop transient. RTP.Interrupt_Register.RTP.Par_Err_Interrupt_Register.ParityErrInt

The sfe number is 15.

Step 3. Apply the formula based on data gathered from steps 1 and 2.

- For LCC: devide the sfe number by 6, and round down, to get the Fabric Card (FC)The rack number indicates the rack of the FC.
  e.g. 1
  0/RP0/ADMIN0:Jun 28 10:48:54.132 UTC: sfe_driver[2526]: %PLATFORM-CIH-5-ASIC_ERROR :sfe[15]: A parity error has occurred causing  packet drop transient. RTP.Interrupt_Register.RTP.Par_Err_Interrupt_Register.ParityErrInt

  Chassis type = LCC

  Rack # = 0

  SFE # = 15

  15/6 = 2 (rounded down)

  Fabric card = 0/FC2

  e.g. 2

  2/RP1/ADMIN0:Jul 24 15:59:04.984 UTC: sfe_driver[2538]: %PLATFORM-CIH-5-ASIC_ERROR : sfe[13]: A parity error has occurred causing  packet drop transient. RTP.Interrupt_Register.RTP.Par_Err_Interrupt_Register.ParityErrInt

  Chassis type = LCC

  Rack # = 2

  SFE # = 13

  13/6 = 2 (rounded down)

  Fabric card = 2/FC2

- For FC: Divide the sfe number by 3, and round down, to get the fabric card (FC).The rack number indicates the rack of the FC.
  e.g. 1

  F0/SC0/ADMIN0:Jul 24 15:59:15.953 UTC: sfe_driver[2470]: %PLATFORM-CIH-5-ASIC_ERROR : sfe[11]: A parity error has occurred causing  packet drop transient. RTP.Interrupt_Register.RTP.Par_Err_Interrupt_Register.ParityErrInt

  Chassis type = FC

  Rack # = 0

  SFE # = 15

  11/3 = 3 (rounded down)

Fabric card = F0/FC3

e.g. 2

F1/SC0/ADMIN0:Jul 24 15:59:35.792 UTC: sfe_driver[2489]: %PLATFORM-CIH-5-ASIC_ERROR : sfe[34]: A parity error has occurred causing  packet drop transient. RTP.Interrupt_Register.RTP.Par_Err_Interrupt_Register.ParityErrInt

Chassis type = FC

Rack # = 1

SFE # = 34

11/3 = 11 (rounded down)

Fabric card = F0/FC11


**Note**: As part of the 5.2.5 release the log message will incide the fabric card generating the syslog message and therefore this converstion is no longer required.