分析分级Fretta平台相关(PD)问题

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简介

本文档介绍如何分析和查找与Fretta(NCS5500)系列路由器相关的平台问题的根本原因的指南。

要收集的日志

对于任何与平台相关的分类，请收集下列基本日志。根据可疑的组件或功能区域，收集除基本日志以外的其他日志，如下面的小节所示。

要收集的基本日志

- show logging
- show tech ctrace
- show tech card-mgr
- show tech shelf-mgr
- show tech os

- show tech obfl

HeartBeat未命中日志

- show tech heart-beat miss

EOBC/EPC相关日志

请参阅跟踪EOBC/EPC特定问题。

- show tech control-ethernet

交换矩阵相关

- show tech fabric from xrvm

切片管理器

- show tech-support sdr_mgr
- show tech-support install
- show tech-support交换矩阵
- show tech-support fpd
- show tech-support cm
- show controller fabric health
- show platform slices

MPA管理器

- show tech-support mpa-mgr

LED

- show tech-support envmon
- show tech-support alarm_mgr
- 显示警报
- show led
- show environment

有关LED和状态的详细信息，请参阅以下链接。

PD安装

请参阅跟踪PD安装问题

详细信息

使用card-mgr日志进行分析

- 请花一些时间浏览卡片管理器详细维基，网址为：
- 要调试任何平台问题，您需要使用show tech ctrace、show tech card-mgr和show tech shelf_mgr日志来了解正在发生的情况。
- show reboot-history card location <> from shelf_mgr logs提供卡的重新启动历史记录。
- show tech card-mgr logs中的show controllers card-mgr event-history brief location <>和show controllers card-mgr event-history detail location <>提供card-mgr fsm状态机详细信息的详细信息。
- 当卡无法启动时，您需要查看该卡的事件历史记录，并根据卡被卡住/发生故障的状态/事件，需要使用BIOS、PD安装或卡管理器视点进行检查。每个事件都有一个关联的邮政编码，提供有关FSM移动的线索。

注意：如果线路卡无法启动并进入FAILED/FAILED状态，则需要在强制重新加载线路卡后连接到线路卡控制台。这有助于您了解线卡无法启动的原因。show tech无法从发生故障的线路卡收集日志。

请参阅上面提到的card-mgr详细维基，了解特定状态、事件和邮政编码详细信息的含义。另请参阅calvados/dc_common_pkg/drivers/card_mgr/card_mgr_fsm.smil上的卡管理器smil文件。此文件对FSM状态、事件和状态转换有详细说明。

以下是LC冷重置时工作案例event-history brief输出的示例：

```
sysadmin-vm:0_RP0# show controller card-mgr event-history brief location 0/1
Mon Dec 16 14:47:58.974 UTC+00:00

Card Event History for: 0/1

Card Event History as seen by Master (0/RP0)
Current State: CARD_READY

DATE  TIME (UTC)   STATE EVENT
----- ------------ --------------------- -------------------------------
12/16 14:46:51.116 WAIT_CARD_INFO ev_card_info_synced
12/16 14:46:06.990 WAIT_SYSADMIN_VM_READY ev_sysadmin_vm_booted
12/16 14:45:57.375 HOST_OS_RUNNING ev_sysadmin_vm_started
12/16 14:45:39.554 BOOTLDR_STARTED ev_host_os_started
12/16 14:44:22.746 CARD_POWERED_ON ev_bootldr_started
12/16 14:44:19.142 IOFPGA_BOOTED ev_dm1_power_up_ok
12/16 14:44:12.825 IOFPGA_RESET_CHECK ev_inserted
12/16 14:44:12.325 CARD_IN_RESET ev_removed
12/16 14:44:10.224 PROCESS_PENDING_RESET if_pending_cold_reset_req
12/16 14:44:10.224 SYSADMIN_VM_GOING_DOWN ev_host_halting_os
12/16 14:43:50.258 SYSADMIN_VM_GOING_DOWN ev_cold_reset_req
12/16 14:43:34.275 CARD_READY ev_sysadmin_vm_shutdown
12/16 11:11:55.291 OIR_INSERT_NOTIF if_card_local_init_done
12/16 11:11:55.290 IDLE ev_card_info_synced
```

事件历史记录详细输出示例：

```
sysadmin-vm:0_RP0# show controller card-mgr event-history detail location 0/1
Mon Dec 16 14:49:20.850 UTC+00:00

Card Event History for: 0/1

Card Event History as seen by Master (0/RP0)
Event buffer info:
Total number of events recorded: 14
Number of events available for display: 14

Current State: CARD_READY

EVENT #: 13 (record index = 13)
TIMESTAMP: 2019/12/16 14:46:51.116090 UTC
STATE: WAIT_CARD_INFO
EVENT: ev_card_info_synced
EVENT DESC: Card info of the remote node has been received

EVENT #: 12 (record index = 12)
TIMESTAMP: 2019/12/16 14:46:06.990465 UTC
STATE: WAIT_SYSADMIN_VM_READY
EVENT: ev_sysadmin_vm_booted
EVENT DESC: SysAdmin VM has booted

EVENT #: 11 (record index = 11)
TIMESTAMP: 2019/12/16 14:45:57.375813 UTC
STATE: HOST_OS_RUNNING
EVENT: ev_sysadmin_vm_started
EVENT DESC: SysAdmin VM has been started from host

EVENT #: 10 (record index = 10)
TIMESTAMP: 2019/12/16 14:45:39.554589 UTC
STATE: BOOTLDR_STARTED
EVENT: ev_host_os_started
EVENT DESC: Host OS has started booting

EVENT #: 9 (record index = 9)
TIMESTAMP: 2019/12/16 14:44:22.746147 UTC
STATE: CARD_POWERED_ON
EVENT: ev_bootldr_started
EVENT DESC: Bootloader on the card has started booting

EVENT #: 8 (record index = 8)
TIMESTAMP: 2019/12/16 14:44:19.142021 UTC
STATE: IOFPGA_BOOTED
EVENT: ev_dm1_power_up_ok
EVENT DESC: I/O FPGA indicating power domain 1 was successfully powered up

EVENT #: 7 (record index = 7)
TIMESTAMP: 2019/12/16 14:44:12.825682 UTC
STATE: IOFPGA_RESET_CHECK
EVENT: ev_inserted
EVENT DESC: Card inserted into the chassis or I/O FPGA booted

EVENT #: 6 (record index = 6)
TIMESTAMP: 2019/12/16 14:44:12.325703 UTC
STATE: CARD_IN_RESET
EVENT: ev_removed
EVENT DESC: Card removed from chassis or I/O FPGA was power cycled

EVENT #: 5 (record index = 5)
```

```
TIMESTAMP: 2019/12/16 14:44:10.224354 UTC
STATE: PROCESS_PENDING_RESET
EVENT: if_pending_cold_reset_req

EVENT #: 4 (record index = 4)
TIMESTAMP: 2019/12/16 14:44:10.224343 UTC
STATE: SYSADMIN_VM_GOING_DOWN
EVENT: ev_host_halting_os
EVENT DESC: Host is performing halting of OS

EVENT #: 3 (record index = 3)
TIMESTAMP: 2019/12/16 14:43:50.258016 UTC
STATE: SYSADMIN_VM_GOING_DOWN
EVENT: ev_cold_reset_req
EVENT DESC: Client request to cold reset the card (I/O FPGA is also power-cycled)

EVENT #: 2 (record index = 2)
TIMESTAMP: 2019/12/16 14:43:34.275167 UTC
STATE: CARD_READY
EVENT: ev_sysadmin_vm_shutdown
EVENT DESC: SysAdmin VM shutdown operation has started

EVENT #: 1 (record index = 1)
TIMESTAMP: 2019/12/16 11:11:55.291184 UTC
STATE: OIR_INSERT_NOTIF
EVENT: if_card_local_init_done

EVENT #: 0 (record index = 0)
TIMESTAMP: 2019/12/16 11:11:55.290959 UTC
STATE: IDLE
EVENT: ev_card_info_synced
EVENT DESC: Card info of the remote node has been received
```

在主SC和主SUP上观察到的后代码示例：

根据以下输出确定相关卡的物理插槽编号以及主SC和SUP:

位置0/1物理插槽编号为2（ID列），主SC为0/SC0，主SUP为0/RP0。

```
sysadmin-vm:0_RP0# show controller card-mgr inventory summary
Mon Dec 16 14:50:50.810 UTC+00:00
Card Manager Inventory Summary :
BP HW
Location Card Type      ID Serial Number Ver Card State
-------------------------------------------------------------------------------
0/1   NC55-32T16Q4H-AT   2 JAE233813G2   0.302 CARD_READY
0/2   NC55-12X100GE-PROT 3 SAL1918EF3S   0.203 CARD_READY
0/FC1 NC55-5504-FC      22 JAE210600VD   0.3   CARD_READY
0/FC3 NC55-5504-FC      24 JAE210600XV   0.3   CARD_READY
0/FC5 NC55-5504-FC      26 JAE210600VX   0.3   CARD_READY
0/RP0 NC55-RP (Master)  27 SAL2044VUZT   1.0   CARD_READY
0/RP1 NC55-RP (Slave)   28 SAL1916DT8B   0.2040 CARD_READY
0/SC0 NC55-SC (Master)  29 SAL2046W07E   1.6   CARD_READY
```

使用此命令获取线路卡0/1的邮政编码列表：

```
sysadmin-vm:0_RP0# show controller card-mgr trace cmgr_isr location 0/SC0 | inc "slot 2" | inc changed
Mon Dec 16 14:56:27.355 UTC+00:00
2019-12-16:11.14.44.916211712:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.14.44.916268544:[ISR]: POST Code for slot 22 changed to 0x54
2019-12-16:11.14.44.916295168:[ISR]: POST Code for slot 24 changed to 0x54
2019-12-16:11.14.44.916321280:[ISR]: POST Code for slot 26 changed to 0x54
2019-12-16:11.14.44.916347392:[ISR]: POST Code for slot 27 changed to 0xa0
2019-12-16:11.14.44.916373504:[ISR]: POST Code for slot 28 changed to 0xa0
2019-12-16:11.15.03.646569472:[ISR]: POST Code for slot 26 changed to 0xa0
2019-12-16:11.15.04.748022272:[ISR]: POST Code for slot 22 changed to 0xa0
2019-12-16:11.15.14.266484736:[ISR]: POST Code for slot 24 changed to 0xa0
2019-12-16:11.18.11.489846272:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.18.12.491101184:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.22.30.391535104:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.22.31.492875776:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.26.49.407702016:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.26.50.509097472:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.31.08.408430592:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.31.09.409682432:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.35.26.315185152:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.35.27.416556032:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.39.45.310315520:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.39.46.311528448:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.44.04.337517056:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.44.05.338741248:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.48.23.232193024:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.48.24.333538304:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.52.41.234022400:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.52.43.336457728:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:11.57.00.153080320:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:11.57.01.254410752:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.01.19.178457600:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.01.20.179703296:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.05.38.203790336:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.05.39.205028864:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.09.57.103055360:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.09.58.204383232:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.14.15.027237888:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.14.16.128579072:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.18.34.047417856:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.18.35.148794880:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.22.53.047706624:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.22.54.048883200:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.27.12.054199808:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.27.13.055494656:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.31.30.979380224:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.31.32.080705024:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.35.48.888316416:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.35.49.989663744:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.40.07.891782144:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.40.08.993085440:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.44.26.908366848:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.44.27.909621760:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.48.45.918578176:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.48.46.919841792:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.53.03.837281280:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:12.53.04.838517248:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:12.57.22.831639552:[ISR]: POST Code for slot 2 changed to 0x1e
```

2019-12-16:12.57.23.832911360:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.01.41.833031680:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.01.42.834268672:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.06.00.740024320:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.06.01.841394688:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.10.19.768019968:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.10.20.769302528:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.14.37.655355392:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.14.38.756755456:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.18.56.655229952:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.18.57.756587520:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.23.15.658801664:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.23.16.660048384:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.27.34.655034880:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.27.35.656287232:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.31.53.652897792:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.31.54.654104576:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.36.11.558914560:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.36.12.560167424:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.40.30.568370688:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.40.31.569627136:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.44.49.468186112:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.44.50.571635712:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.49.08.482063360:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.49.09.583393280:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.53.26.395422208:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.53.27.496771584:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:13.57.45.399475712:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:13.57.46.500909568:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.02.04.405213184:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.02.05.406433280:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.06.23.417884672:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.06.24.419138048:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.10.42.329566720:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.10.43.430938112:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.15.00.253901824:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.15.01.355243520:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.19.19.247721472:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.19.20.349063680:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.23.38.254869504:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.23.39.256110592:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.27.57.261724160:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.27.58.262965760:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.32.15.158858240:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.32.17.261378560:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.36.34.186439168:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.36.35.187675648:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.40.53.126042624:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.40.54.227419648:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.43.33.504493568:[ISR]: POST Code for slot 2 changed to 0xa1
2019-12-16:14.44.09.450505728:[ISR]: POST Code for slot 2 changed to 0x73
2019-12-16:14.44.18.369435136:[ISR]: POST Code for slot 2 changed to 0x1b
2019-12-16:14.44.21.973499392:[ISR]: POST Code for slot 2 changed to 0xe0
2019-12-16:14.44.45.599875072:[ISR]: POST Code for slot 2 changed to 0xe1
2019-12-16:14.45.26.660646400:[ISR]: POST Code for slot 2 changed to 0xe3
2019-12-16:14.45.28.064965632:[ISR]: POST Code for slot 2 changed to 0xe2
2019-12-16:14.45.30.167515648:[ISR]: POST Code for slot 2 changed to 0xe4
2019-12-16:14.45.33.070848000:[ISR]: POST Code for slot 2 changed to 0xe6
2019-12-16:14.45.38.777229312:[ISR]: POST Code for slot 2 changed to 0x50
2019-12-16:14.45.56.597211648:[ISR]: POST Code for slot 2 changed to 0x54
2019-12-16:14.46.06.211475968:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.46.14.720887296:[ISR]: POST Code for slot 2 changed to 0x17

```
2019-12-16:14.46.15.822237696:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.48.29.977753088:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.48.31.079104512:[ISR]: POST Code for slot 2 changed to 0xa0
2019-12-16:14.52.48.986328576:[ISR]: POST Code for slot 2 changed to 0x1e
2019-12-16:14.52.49.987563520:[ISR]: POST Code for slot 2 changed to 0xa0
```

使用show tech ctrace进行离线分析

在Ads服务器上脱机解码ctrace

1. 将show tech ctrace archive复制到ads服务器上的某个目录。
2. 使用 — tar zxvf showtech-ctrace-admin-2019-Nov-06.174210.UTC.tgz解压缩存档内容
3. cd showtech-ctrace-admin-2019-Nov-06.174210.UTC
4. 使用此命令可解码目录cmgr下的card_mgr进程的跟踪
   ：/users/gonaidu/bin/showtech_ct_dec -d cmgr -p card_mgr
5. cd cmgr


注意：ctrace解码的日志位于本地时区 — 如果在班加罗尔ADS服务器上完成解码，则ctrace基于IST时区。在比较路由器日志和离线解码的ctrace日志时，请记住这一点。

确定主SC和主SUP

在cmgr目录下使用“grep "Master Role" *":

```
card_mgr.0_RP0:299:2019-02-22:07.35.38.709224844:2580:calvados/dc_common_pkg/drivers/card_mgr/src/card_
card_mgr.0_SC0:96:2019-04-06:19.04.34.500975616:1976:calvados/dc_common_pkg/drivers/card_mgr/src/card_m
```

从主SC检索后代码

使用此命令获取LC 0/1的发布代码：grep "slot 2" card_mgr.0_SC0 | grep changed

```
2019-04-06:19.04.34.759844864:1976:calvados/dc_common_pkg/drivers/card_mgr/src/card_mgr_interrupt.c:256
```

从主RP角度查看事件历史记录：

grep RCAPI_NOTIFY_CARD_POST_CODE_CB card_mgr.0_RP0 | grep "0\/1"

```
2019-04-06:19.04.40.665774834:2589:calvados/dc_common_pkg/drivers/card_mgr/src/card_mgr_rack_service.c:
```

分类方案示例

- 卡管理器进程CPU占用：

- 在LC重新加载 — Potentza 10C时切片未出现

如何拉动、编辑和构建Satori产品组合？

可以同时存在多个行。工程师需要知道他/她应该从何处查看视图。要了解适当的satori组合/devline，请在sysadmin linux提示符下运行此命令

cat /etc/build-info.txt

你得到这样的结果

<#root>

```
### Thirdparty Information



SDK arm /auto/exr-yocto/SDK/WRL7/Fretta/REL0109/arm/kvm-host-arm-sdk.tgz

SDK x86_64 /auto/exr-yocto/SDK/WRL7/Fretta/REL0109/x86_64/kvm-host-x86_64-sdk.tgz

Refpoint = thirdparty/opensource/release@tp-main/289

Hostname     : calcium-99.cisco.com

 Workspace    : /nobackup/hetsoi/satori-wrl7.release.20191209/target-n9000-gdb

 Source Base  : ssh://wwwin-git-sjc-2/git/thinstack/satori.git

Devline      : cisco-xr-wr7


 Devline Ver  : f53915539d9ca49d3dedec0882ee4eb12a408956

 Devline Type : GIT Repository



Here Devline ‘cisco-xr-wr7’ should be used.
```

```
Before pulling the view, setup your environment
```

步骤2.确保此条目存在于您的git配置文件ie;~/.gitconfig

[应用]

空格= nowarn

ignorewhitespace =更改

步骤3.在执行任何活动之前，使用此命令设置环境

source /auto/exr-yocto/tools/scripts/set_yocto_env

步骤4.使用此命令拉取视图。

acme pull -sb ios_ena -dev cisco-xr-wr7 -plat none

步骤5.在外壳中运行以下命令

取消设置CDPATH

用于构建内核的命令

步骤1.导航到Satori目录并运行此命令。

scripts/xr/build-release.sh -f

步骤2.成功构建内核后，它会将cisco特定的修补程序应用到各种.c文件，并且代码可在此路径中用于代码转移。

satori/target-n9000-gdb/bitbake_build/tmp/work/n9000_gdb-wrs-linux/

注意：您不应在此处进行任何永久更改以反映在二进制文件中，因为这是tmp位置，将在下一个生成中被覆盖。此位置的代码应用于代码行走和.patch文件生成。此处讨论.patch文件

从代码位置的角度来看，klm的代码位于两条路径上

- 对于Code walk和patch generation:

satori/target-n9000-gdb/bitbake_build/tmp/work/n9000_gdb-wrs-linux/

- 二进制/sdk版本中使用的实际.c和.h文件

satori/meta-cisco-nxos/recipes-kernel/

在以上路径中，您将获得两个目录

A.cisco-klm —>这涵盖了模块化和固定式fretta系统中使用的所有klm。

b.cisco-klm-zermatt —>这涵盖所有klm，它们仅用于固定的fretta系统，如klm_iofpga。

如何针对不同的KLM进行更改并进行编译？

对klm_iofpga进行更改非常简单。只需转到此路径，即可开始在您感兴趣的.c或.h文件中进行更改。

satori/target-n9000-gdb/bitbake_build/tmp/work/n9000_gdb-wrs-linux/cisco-klm-zermatt/0.1-r0/klm_iofpga

为其他所有荷兰皇家海军做出改变有些棘手。如上所述，您需要转到tmp位置，进行更改，生成.patch文件（如何生成.patch文件在此介绍）。 atch文件复制到特定位置，在.bb文件中输入此新。patch文件，然后启动生成。

请查找进行更改的步骤。

步骤1.转至您想要进行更改的klm特定目录。你可以在这个地方找到所有klm。

satori/target-n9000-gdb/bitbake_build/tmp/work/n9000_gdb-wrs-linux/cisco-klm/0.1-r0

步骤2.使用面组工具进行更改，以便生成。patch文件。请注意，此处的acme diff不起作用，因此您需要使用面组工具生成曲面片文件。

步骤3.设置面组工具别名

cd satori/target-n9000-gdb/bitbake_build/tmp/work/n9000_gdb-wrs-linux/cisco-klm/0.1-r0

alias quilt=/nobackup/rpanday/kernel-wr7/satori/target-n9000-gdb/bitbake_build/tmp/sysroot/x86_64-linux/usr/bin/quilt

面组新patch_file.patch ->指令面组分配名为patch_file.patch的新.patch文件。

面组顶部(quilt top)->此命令告诉我们patch_file.patch位于面组堆栈的顶部并可供编辑。

面组编辑klm_obfl/obfl_dc3.c —->指令面组捕获在klm_obfl/obfl_dc3.c中完成的更改。运行此命令后，obfl_dc3.c将打开并做好编辑准备。编辑完成后，写并退出。

面组刷新 —>此命令获取已编辑文件klm_obfl/obfl_dc3.c的差异，并将其放入patch_file.patch中。要验证相同内容，请在vi中打开该文件。

步骤4.生成修补程序文件patch_file.patch后，请将其复制到此路径。

cp patches/patch_file.patch /nobackup/rpanday/kernel-wr7/satori/meta-cisco-nxos/recipes-kernel/cisco-klm/files

步骤5.在.bb文件中为此新的.patch文件创建条目。.bb文件位于此位置。

/nobackup/rpanday/kernel-wr7/satori/meta-cisco-nxos/recipes-kernel/cisco-klm/cisco-klm_0.1.bb

Fretta固定卡硬件和FPGA规格

PID	工程名称	卡类型	硬件规格	IOFPGA规范
NCS-5502-SE	采尔马特	2RU固定	· EDCS-1515475	· EDCS-1026647 · EDCS-1516467 · EDCS-1193041
NCS-5501-SE	都灵 — MX	1RU固定	· EDCS-1497433	· EDCS-1527505 · EDCS-1527506
NCS-5502-SE-PROTO	采尔马特 — 普罗托			
NCS-5502	ZERMATT-CR	2RU固定	· EDCS-1515475	EDCS- 1516467 CPU IOFPGA FS:EDCS- 1026647 MIFPGA - EDCS - 1193041
NCS-5501	太湖	1RU固定	EDCS-1530044	IOFPGA - EDCS-1541805 MIFPGA - EDCS-1541804
NCS-5501-A2-SE	临冬城			

NCS-5501-A1-SE	奥尔德卡斯尔			
NCS-5501-A1	NCS-55A1-36H-S 奥尔德卡斯尔			
NCS-55A1-36H-SE-S	奥尔德卡斯尔 — 塞	1RU固定	· EDCS-1563746	· EDCS-1568105 · EDCS-11402862 · EDCS-11556985
NCS-55A1-36H-S	OLDCASTLE-CR	1RU固定	· EDCS-1563746	· EDCS-1568105 · EDCS-11402862
N540-X-24Z8Q2C-M	托廷共形盒			
N540-24Z8Q2C-M	TORTIN-CR			
N540X-ACC-SYS	TORTIN-16G-CR			
N540-ACC-SYS	TORTIN-16G			
NCS-5501-HD	N540-24Z8Q2C-M TORTIN-CR			
NCS-5501-A3	NCS-55A1-24H 派克			
NCS-55A1-24H	派克	1RU固定	· EDCS-11415948	· EDCS- 1568105 EDCS- 1026647 · EDCS-1568940

NCS-55A2-MOD-SE-S	佩托与TCAM	2RU固定	· EDCS-11601538	· EDCS-11632621 · EDCS-11632622
NC55A2-MOD-SE-H-S	PEYTO与TCAM和CC	2RU固定	· EDCS-11601538	· EDCS-11632621 · EDCS-11632622
NCS-55A2-MOD-S	Peyto NonSE C-temp(TCAM)	2RU固定	· EDCS-11601538	· EDCS-11632621 · EDCS-11632622
NCS-55A2-MOD-HD-S	无TCAM的PEYTO	2RU固定	· EDCS-11601538	· EDCS-11632621 · EDCS-11632622
NCS-55A2-MOD-HX-S	没有TCAM的PEYTO，带工业温度CC	2RU固定	· EDCS-11601538	· EDCS-11632621 · EDCS-11632622
NCS-55A1-48Q6H	BIFROST-T	1RU固定	· EDCS-12914104	· EDCS-13259042 · EDCS-15599029 · EDCS-15676955
NCS-55A1-24Q6H-S	都灵 — CR	1RU固定	· EDCS-12909672	· EDCS-13259042 · EDCS-15599029 · EDCS-15676955
NCS-55A1-24Q6H-SS	都灵 — CR			

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