

Analisar problemas de avaliação do Fast Platform Dependent (PD)

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Introduction

Este documento descreve as diretrizes sobre como analisar e encontrar as causas raiz dos problemas dependentes da plataforma na família de roteadores Fretta (NCS5500).

Logs a serem coletados

Para qualquer triagem dependente da plataforma, colete os registros básicos listados abaixo. Dependendo da área suspeita de componente ou funcionalidade, colete outros registros além dos registros básicos, conforme indicado nas subseções abaixo.

Logs básicos a serem coletados

- show logging
- show tech ctrace
- show tech card-mgr

- `show tech shelf-mgr`
- `show tech os`
- `show tech obfl`

Logs de Miss HeartBeat

- `show tech coração-beat miss`

Logs relacionados ao EOBC/EPC

Consulte para identificar problemas específicos do EOBC/EPC.

- `show tech control-ethernet`

Relacionado à estrutura

- `show tech fabric de xrvn`

Gerenciador de Fatia

- `show tech-support sdr_mgr`
- `show tech-support install`
- `show tech-support fabric`
- `show tech-support fpd`
- `show tech-support cm`
- `show controller fabric health`
- `show platform slices`

Gerenciador MPA

- `show tech-support mpa-mgr`

LED

- `show tech-support envmon`
- `show tech-support alarm_mgr`
- `show alarms`
- `show led`
- `show environment`

Consulte esses links para obter mais detalhes sobre o LED e o status.

Instalação PD

Consulte para obter informações sobre problemas de instalação do PD

Detalhes

Análise usando logs do card-mgr

- Dedique um tempo ao wiki detalhado do gerente de cartão em
- Para depurar qualquer problema de plataforma, você precisa usar **show tech ctrace**, **show tech card-mgr** e **show tech shelf_mgr** logs para entender o que está acontecendo.
- **show reboot-history card location <>** dos logs **shelf_mgr** fornece o histórico de reinicialização da placa.
- **show controllers card-mgr event-history brief location <>** e **show controllers card-mgr event-history detail <>** de **show tech card-mgr** logs fornecem detalhes sobre os detalhes da máquina de estado do fsm card-mgr.
- Quando uma placa falha na inicialização, você precisa examinar o histórico de eventos dessa placa e, com base no estado/evento em que a placa está presa/defeituosa, é necessário verificar o ponto de vista do BIOS, PD install ou card-mgr. Cada evento tem um código postal associado, que fornece pistas para o movimento FSM.

Note: Se uma placa de linha não inicializar e passar para o estado FAILED/FAILED, você precisará se conectar ao console da placa de linha após forçar o recarregamento da placa. Isso ajuda a entender por que a placa de linha está falhando ao inicializar. **show tech** não consegue coletar registros de uma placa de linha com falha.

Consulte o wiki detalhado **do gerente de cartão** mencionado acima para entender o significado de estado específico, evento e detalhes do código postal. Consulte também o arquivo **smil do gerenciador de placas** localizado em **calvados/dc_common_pkg/drivers/card_mgr/card_mgr_fsm.smil**. Este arquivo tem uma boa descrição dos estados do FSM, eventos e transição de estado.

Aqui está um exemplo de saída resumida do histórico de eventos de funcionamento quando um LC é redefinido a frio:

```
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_dml_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
```

Exemplo de saída detalhada do histórico de eventos:

```
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_dml_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

Exemplo de pós-códigos observados no SC primário e no SUP primário:

Identifique o número do slot físico da placa em questão e o SC e SUP primários a partir dessa saída:

o número de slot físico do local 0/1 é 2 (coluna de ID), SC primário é 0/SC0 e SUP primário é 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
```

Use este comando para obter a lista de códigos postais para a placa de linha 0/1:

```
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

Use show tech trace para fazer análise off-line

Decodificar o rastreamento offline no Servidor de Anúncios

1. Copie o arquivo show tech ctrace para um diretório no servidor de anúncios.
2. Retire o conteúdo do arquivo usando - **tar zxvf showtech-ctrace-admin-2019-nov-06.174210.UTC.tgz**
3. **cd showtech-ctrace-admin-2019-nov-06.174210.UTC**
4. Use este comando para decodificar os rastreamentos do processo card_mgr no diretório **cmgr: /users/gonaidu/bin/showtech_ct_dec -d cmgr -p card_mgr**
5. **cd cmgr**

Note: os registros decodificados de rastreamento estão no fuso horário local - Se a decodificação foi feita no servidor ADS Bangalore, os rastreamentos são baseados no fuso horário IST. Lembre-se disso ao comparar os registros do roteador e os registros de rastreamento decodificados offline.

Identificar o SC principal e o SUP principal

Use "grep "Master Role" * no diretório do cmgr:

```
card_mgr.0_RP0:299:2019-02-
22:07.35.38.709224844:2580:calvados/dc_common_pkg/drivers/card_mgr/src/card_mgr_main.c:1539:main
:cmgr_main:MAIN_HW_ARB_RESULT:[MAIN]: HW Arbitration Result = Master Role
card_mgr.0_SC0:96:2019-04-
06:19.04.34.500975616:1976:calvados/dc_common_pkg/drivers/card_mgr/src/card_mgr_main.c:1539:main
:cmgr_main:MAIN_HW_ARB_RESULT:[MAIN]: HW Arbitration Result = Master Role
```

Recuperar pós-códigos do SC primário

Use este comando para obter códigos de post para LC 0/1: **grep "slot 2" card_mgr.0_SC0 | grep alterado**

```
2019-04-
06:19.04.34.759844864:1976:calvados/dc_common_pkg/drivers/card_mgr/src/card_mgr_interrupt.c:256:
iofpga_check_card_post_code_change:cmgr_isr:ISR_CARD_POST_CODE_CHANGED:[ISR]: POST Code for slot
2 changed to 0xa0
```

Histórico de eventos do ponto de vista RP principal:

grep RAPI_NOTIFY_CARD_POST_CODE_CB card_mgr.0_RP0 | grep "0V1"

```
2019-04-
06:19.04.40.665774834:2589:calvados/dc_common_pkg/drivers/card_mgr/src/card_mgr_rack_service.c:1
919:cmgr_rack_notify_card_post_code_change_cb:cmgr_rack_capi:RAPI_NOTIFY_CARD_POST_CODE_CB:[RAC
K CAPI]: 0/1 - CAPI cmgr_rack_notify_card_post_code_change_cb, client card_mgr
(PID=1976,hdl=0x7f7c880ff728,slot=29)
```

Exemplo de cenários de triagem

- processo de gerenciador de placa CPU hog:

- Fatia não aparecendo no LC reload-Potenza 10C

Como Puxar, Editar e Construir uma Lineup Satori?

Pode haver várias linhagens coexistentes. O engenheiro precisa saber de onde deve sair. Para saber a linhagem/devline apropriada, no prompt sysadmin linux, execute este comando

```
cat /etc/build-info.txt
```

Você tem o resultado assim

```
### 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

Etapa 2. Certifique-se de que esta entrada esteja presente no arquivo de configuração do git ie; `~/.gitconfig`

[aplicar]

espaço em branco = barulho

ignorewhitespace = alteração

Etapa 3. Use este comando para configurar seu ambiente antes de realizar qualquer atividade

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

Etapa 4. Use este comando para obter a visualização.

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

Etapa 5. Execute o comando abaixo em sua shell

```
unset CDPATH
```

Comando para construir o kernel

Etapa 1. Navegue até o diretório satori e execute esse comando.

```
scripts/xr/build-release.sh -f
```

Etapa 2. Quando o kernel é criado com êxito, ele aplica os patches específicos da cisco a vários arquivos e códigos `c` e `.h` disponíveis neste caminho para a trilha de códigos.

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

Note: você não deve fazer nenhuma alteração permanente aqui para se refletir em seu binário porque este é o local `tmp` e deve ser sobrescrito no próximo build. O código neste local deve ser usado para a caminhada de código e a geração de arquivos `.patch`. O arquivo `.patch` é discutido aqui

Do ponto de vista da localização do código, o código para `klm` está localizado em dois caminhos

- Para caminhada de código e geração de patch:

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

- Arquivos reais `.c` e `.h` usados em compilações binárias/sdk

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

No caminho acima, você obtém dois diretórios

A. `cisco-klm` —> Isso abrange todos os `klm` usados em sistemas modulares e de tarifas fixas.

B. `cisco-klm-zermatt` —> Isso abrange todos os `klm` que são usados somente em sistemas freta fixos como `klm_iofpga`.

Como fazer as alterações para klms diferentes e compilá-las?

Fazer alterações para `klm_iofpga` é muito simples. Vá para esse caminho e comece a fazer alterações no arquivo `.c` ou `.h` em que você está interessado.

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

Fazer alterações para todos os outros klm é um pouco complicado. Como explicado acima, você precisa ir para o local tmp, fazer as alterações, gerar o arquivo **.patch** (como gerar um arquivo **.patch** é explicado aqui). Copie o arquivo **.patch** para um local específico, faça uma entrada para esse novo arquivo **.patch** no arquivo **.bb** e inicie a compilação.

Veja as etapas para fazer as alterações.

Etapa 1. Vá para o diretório específico do klm onde deseja fazer as alterações. Você encontra todos os klms neste local.

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

Etapa 2. Use a ferramenta de colcha para fazer as alterações, de modo que o arquivo **.patch** possa ser gerado. Observação: aqui acme diff não funciona, então você precisa usar a ferramenta de colcha para gerar o arquivo de correção.

Etapa 3. Configurar o alias da ferramenta de colcha

```
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
```

quilt new patch_file.patch —> Instrua quilt para alocar um novo arquivo **.patch** com o nome **patch_file.patch**.

quilt top —> Este comando nos diz que **patch_file.patch** está no topo da pilha de mantas e pronto para ser editado.

quilt edit klm_obfl/obfl_dc3.c —> Instrua a colcha para capturar as alterações feitas em **klm_obfl/obfl_dc3.c**. Quando esse comando é executado, **obfl_dc3.c** está aberto e pronto para edição. Após as edições, escreva e saia.

quilt refresh —> Este comando pega o diff do arquivo editado **klm_obfl/obfl_dc3.c** e o coloca em **patch_file.patch**. Para verificar o mesmo, abra o arquivo em vi.

Etapa 4. Quando o patch file **patch_file.patch** for gerado, copie-o para esse caminho.

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

Etapa 5. Faça uma entrada no arquivo **.bb** para este novo arquivo **.patch**. O arquivo **.bb** está localizado neste local.

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

Especificações de HW e FPGA para placas fixas Fretta

PID	Nome da Engenharia	Tipo de placa	Especificação de HW	Especificação IOFPGA
NCS-5502-SE	ZERMATT	2RU fixo	EDCS-1515475	EDCS- 1026647 EDCS- 1516467

				EDCS- 1193041
NCS-5501-SE	TURIN-MX	1 RU fixa	EDCS-1497433	EDCS- 1527505 EDCS- 1527506
NCS-5502-SE-PROTO	ZERMATT-PROTO			
NCS-5502	ZERMATT-CR	2RU fixo	EDCS-1515475	EDCS- 1516467 CPU IOFPGA FS: EDCS- 1026647 MIFPGA - EDCS - 1193041 IOFPGA - EDCS- 1541805 MIFPGA - EDCS- 1541804
NCS-5501	TAIHU	1 RU fixa	EDCS-1530044	
NCS-5501-A2-SE	WINTERFELL			
NCS-5501-A1-SE	ANTIGO			
NCS-5501-A1	NCS-55A1-36H-S ANTIGO			
NCS-55A1-36H-SE-S	OLDCASTLE-SE	1 RU fixa	EDCS-1563746	EDCS-1568105 EDCS-11402862 EDCS-11556985
NCS-55A1-36H-S	OLDCASTLE-CR	1 RU fixa	EDCS-1563746	EDCS-1568105 EDCS-11402862
N540-X-24Z8Q2C-M	TORTIN-CONFORMAL-BOX			
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 PYKE			
NCS-55A1-24H	PYKE	1 RU fixa	EDCS-11415948	EDCS- 1568105 EDCS- 1026647 EDCS- 1568940
NCS-55A2-MOD-SE-S	PEYTO COM TCAM	2RU fixo	EDCS-11601538	EDCS- 11632621 EDCS- 11632622
NC55A2-MOD-SE-H-S	PEYTO COM TCAM E CC	2RU fixo	EDCS-11601538	EDCS- 11632621 EDCS- 11632622
NCS-55A2-MOD-S	Peyto NonSE C-temp (TCAM)	2RU fixo	EDCS-11601538	EDCS- 11632621 EDCS- 11632622
NCS-55A2-MOD-	PEYTO SEM	2RU fixo	EDCS-	EDCS- 11632621

HD-S	TCAM		11601538	EDCS- 11632622
NCS-55A2-MOD- HX-S	PEYTO SEM TCAM COM Item CC	2RU fixo	EDCS- 11601538	EDCS- 11632621 EDCS- 11632622
NCS-55A1- 48Q6H	BIFROST-T	1 RU fixa	EDCS- 12914104	EDCS- 13259042 EDCS- 15599029 EDCS- 15676955
NCS-55A1- 24Q6H-S	TURIN-CR	1 RU fixa	EDCS- 12909672	EDCS- 13259042 EDCS- 15599029 EDCS- 15676955
NCS-55A1- 24Q6H-SS	TURIN-CR			