

How-To Flash a Timing Receiver

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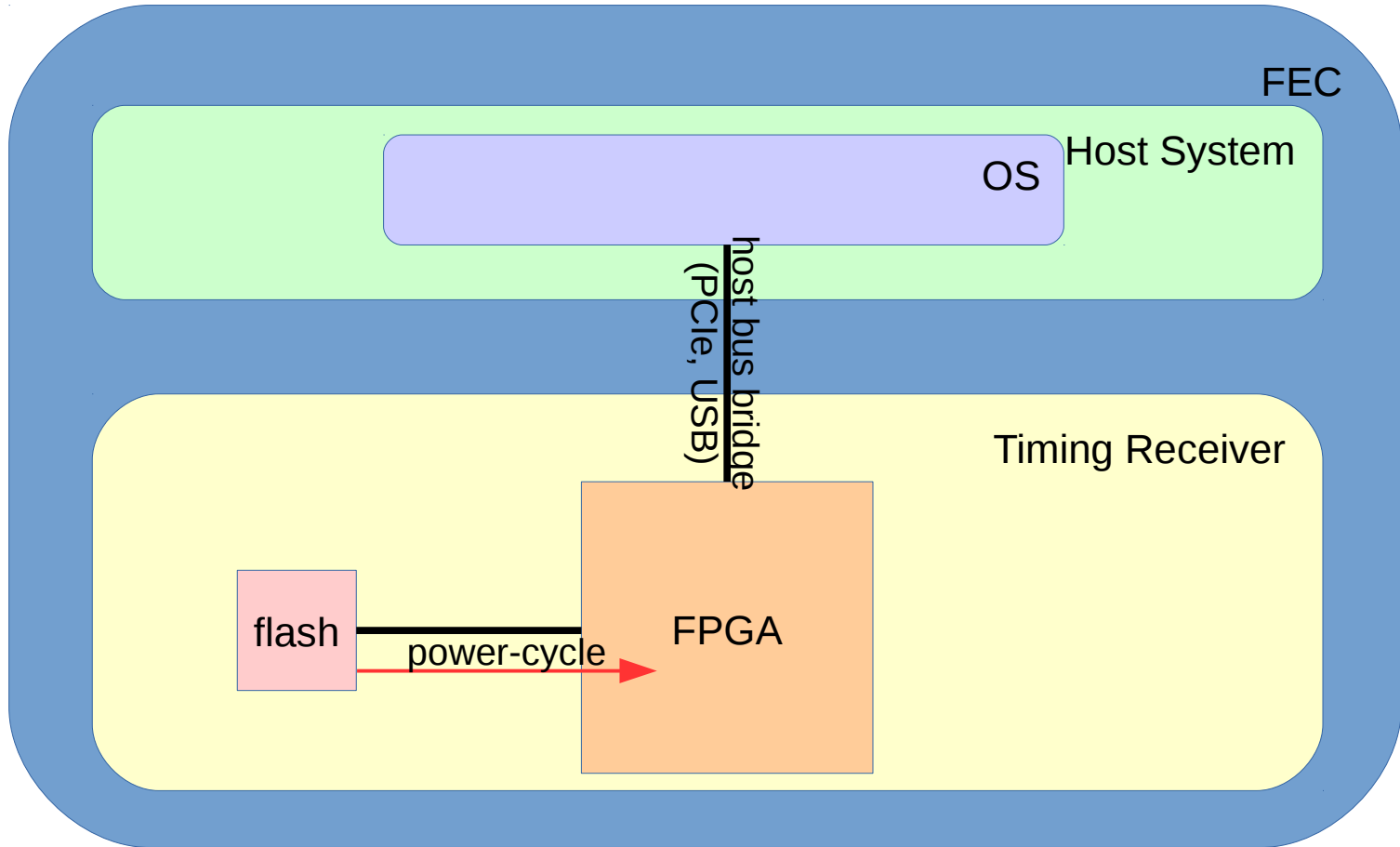
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- Info: New Release *Balloon* (R8)
 - How-To...
 - When...

<https://www-acc.gsi.de/wiki/Timing/TimingSystemHowFlashFTRNUser>

Info: New Control System Release (R8)

- hardware: SCU2/3, PEXARIA, VETAR, EXPLODER
 - remark: SCU2/3 requires hardware modification
- gateway, driver, software (**today: how-to flash new gateway**)
 - ECAv1 → ECAv2 with new features and interfaces
 - timestamps 8ns → 1ns: requires Data Master migration too
 - requires saftlib migration too
 - eca-XXX → saft-YYY: new generation of tools, see <https://www-acc.gsi.de/wiki/Timing/TimingSystemHowConfigureFTRNCommandLine>
 - driver RH6 → EL7: requires OS migration too, 32bit support stopped
 - ...
- ... (FESA, LSA, ...)

Front-End Computer (FEC) Simplified



Quick Start Guide (Example: SCU3)

```
[ruth@scux10815 ~]# eb-flash dev/wbm0 scu_control3.rpd
```

command line tool
(pre-installed)

proto/host(interface)
here: PCIe

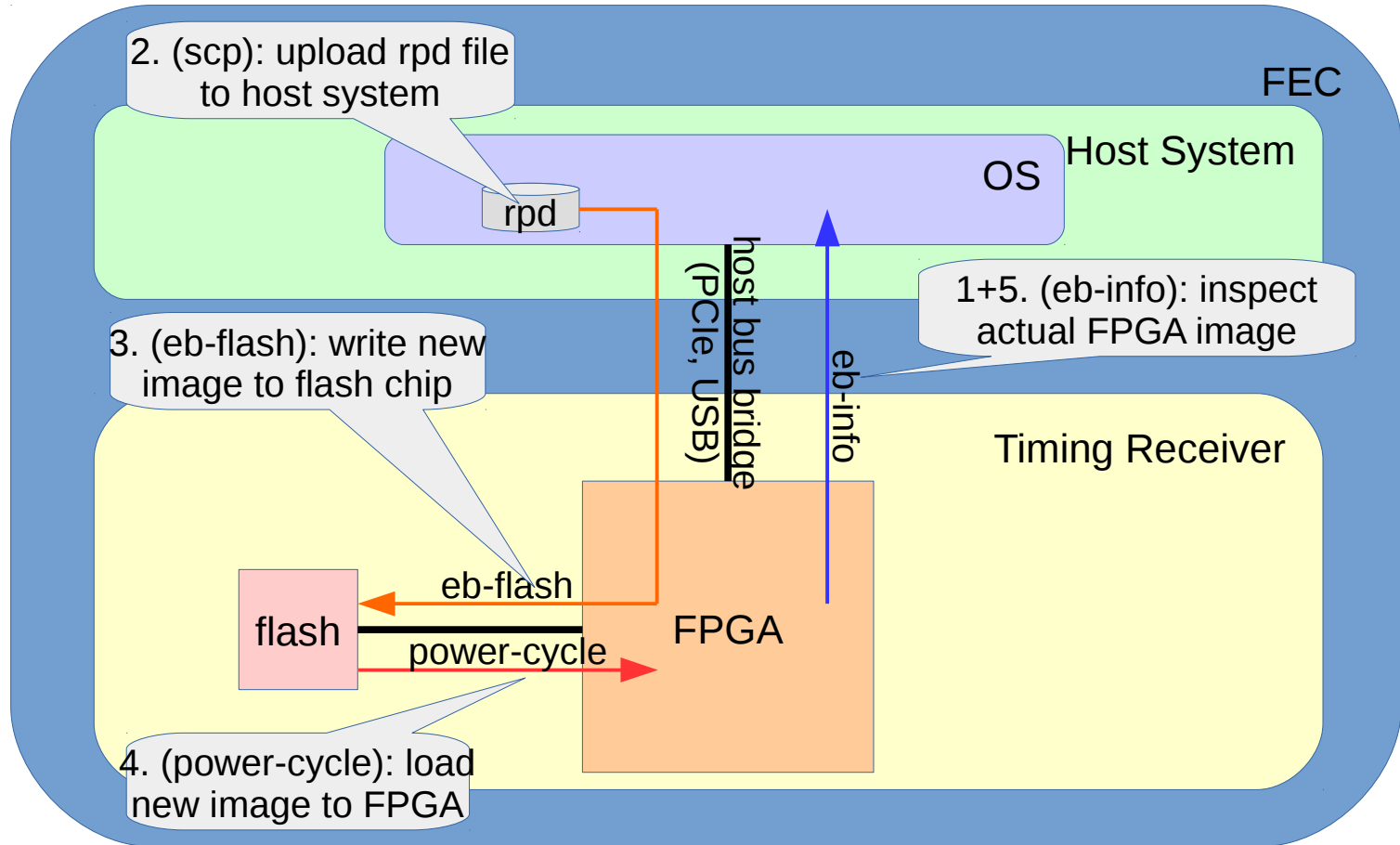
Hardware specific
“rpd file”
here: SCU3

Requirements

- SCU (FTRN) already flashed (with a functional old image)
- SCU (FTRN) powered, host OS running, host reachable via ACC network
- drivers, Etherbone and tools installed (via “nfs-init”)
- “rpd file” **MUST** match the hardware
- “rpd file” copied to host

Directions for Flashing a Timing Receiver

<https://www-acc.gsi.de/wiki/Timing/TimingSystemHowFlashFTRNUser>



How-To (Example: SCU3)

1.

```
[ruth@scux10815 ~]# eb-info dev/wbm0
```
2.

```
[me@asl742 ~]$ scp scu_control3.rpd ruth@scux10815:.
```
3.

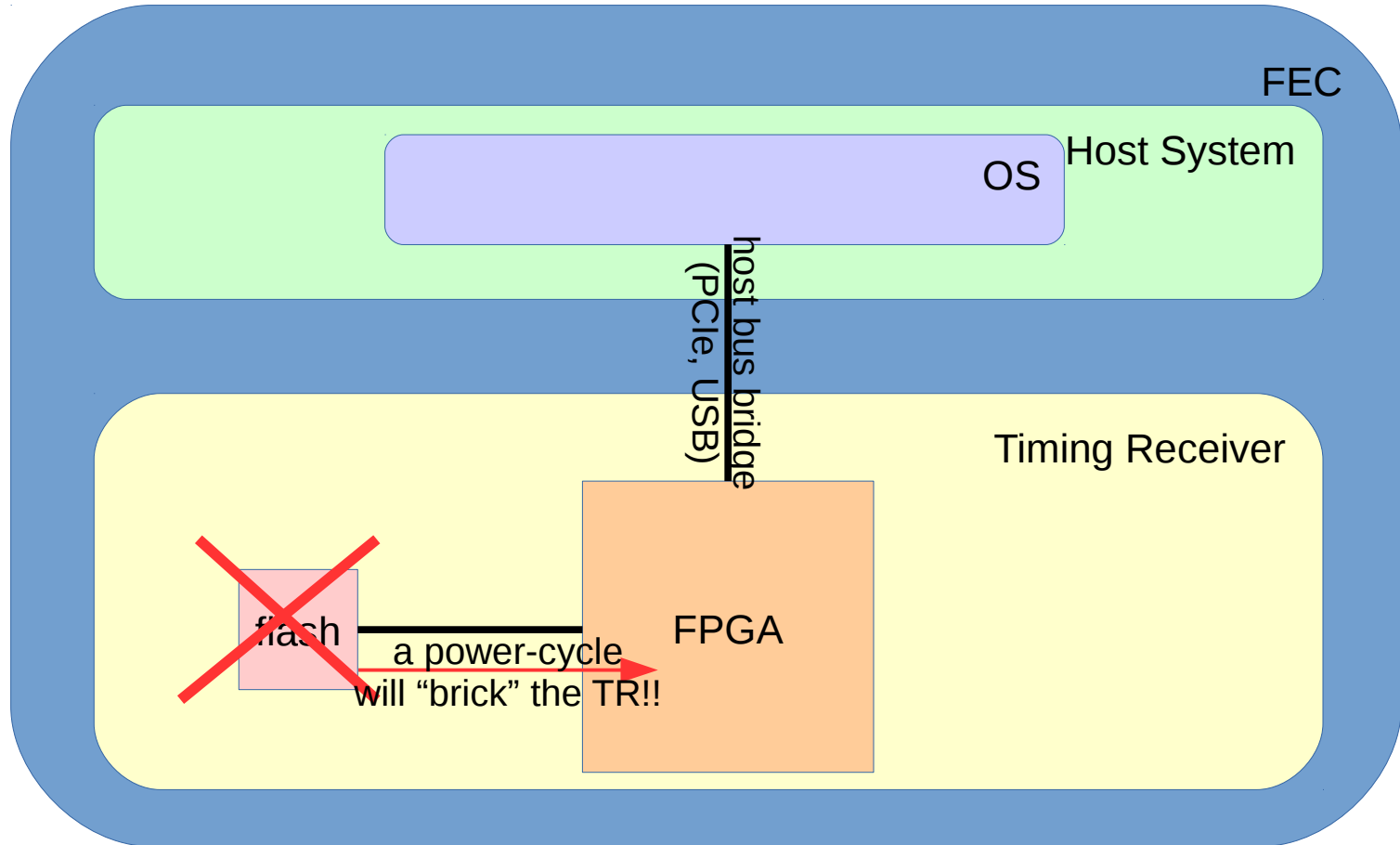
```
[ruth@scux10815 ~]# eb-flash dev/wbm0 scu_control3.rpd
```
4. power cycle SCU
5. use *eb-info* again to verify new image has been loaded

Required:

- username and password for SCU (ssh login)
- ACC account required for asl74x (ssh login), alternative: local Linux PC
- “rpd-file” from release page, <https://www-acc.gsi.de/wiki/Timing/TimingSystemBallonRelease>

If eb-flash Reports an Error :-)

- maybe erasing the old image succeeded but writing a new image failed?



- a power-cycle might result in a "bricked" FEC → try again! → call the experts

When ...

Requirements

- release of “balloon”, not before CW 51 → CSCOTG
 - **gateway (this talk)**
 - software, driver, saftlib: “nfs-init” in /common/export/nfsinit/scux10815

```
[me@as1742]$ ll  
20_timing-rte -> ../global/timing-rte-R8-balloon_0
```

- hardware modification of SCU → CSCOHW
- availability of ACC infrastructure (network, servers, ...), not available in CW1 (+ CW2?) due to migration to Green IT Cube → CSCOIN
- connection LSA → DM working (not yet tested → CSCOAP)
- CRYRING (production network): “Go” from coordinator required