

Event Builder

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Repository cleanup

- Many versions of eb0+eb1 ran on ROPCs
 - depends on deploy date
 - different buffer depth
 - different options at launch
- SLC needs the unification
 - especially about the statistics structure

Statistics structure

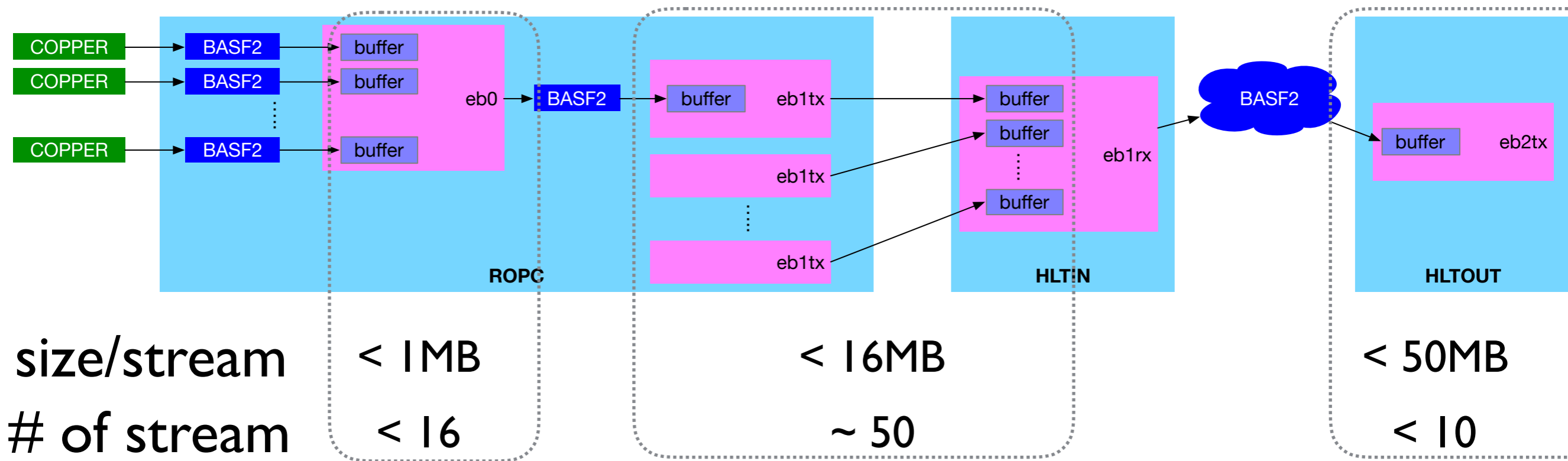
- # events, bytes / event, total bytes
 - for each up/down connections
 - internally updated
 - passed SLC via shared memory
 - structure should be steady
- Buffer occupancy of network socket
 - difficult to monitor internally
 - only sending queue can be checked by SIOCOUTQ

Binary deployment

- Yamada-san prepared svd01 as the base of binary executable.
- mounted by ROPCs for CDC, ECL, KLM, TOP

Problem

- eb0+1+2 use an identical class to receive data from network
- The buffer size is constant

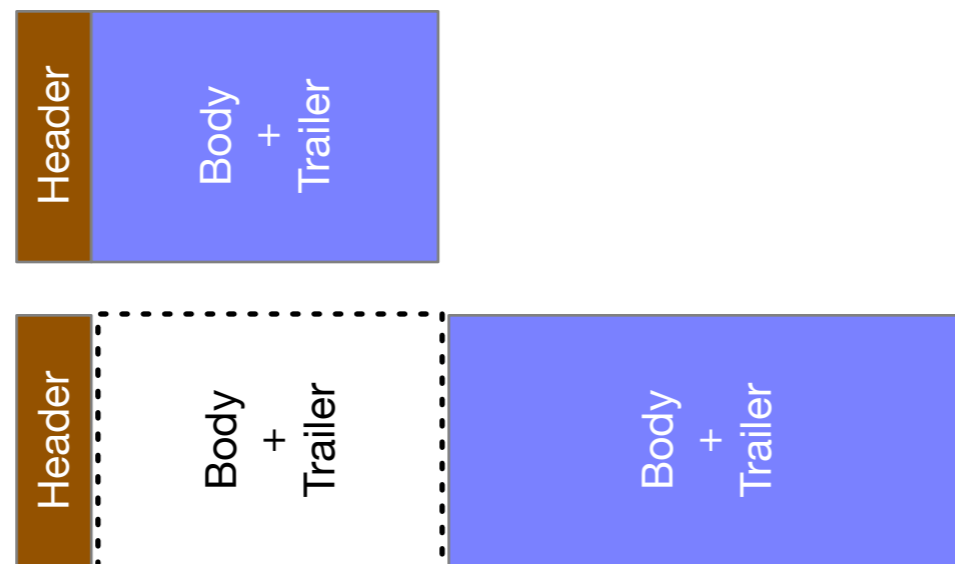


- allocation 50MB x 16streams at ROPC results

```
[DEBUG] eb0 : terminate called after throwing an instance of 'std::bad_alloc'
[DEBUG] eb0 : what():  std::bad_alloc
[DEBUG] Error while reading. 0
[DEBUG] eb0 : terminated          6
```

Fix 1

- Initially allocate short buffer
- extends it if event is longer
- Data corruption bug caused by non-contiguous buffer after the extension
- needs lots of fix about buffer management

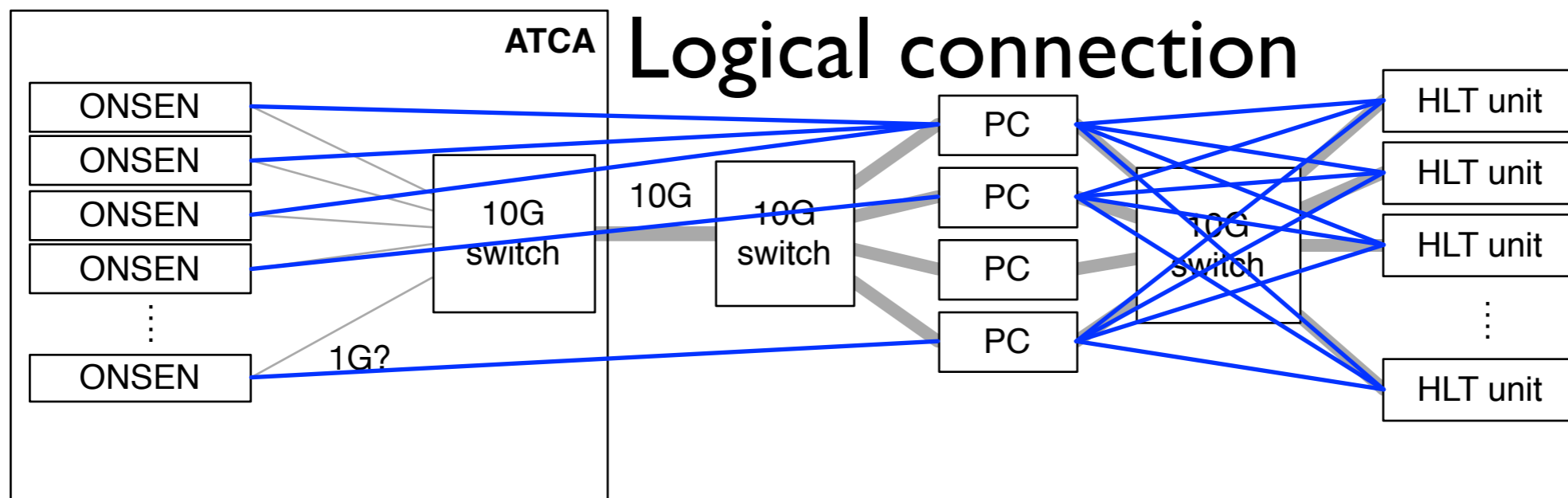
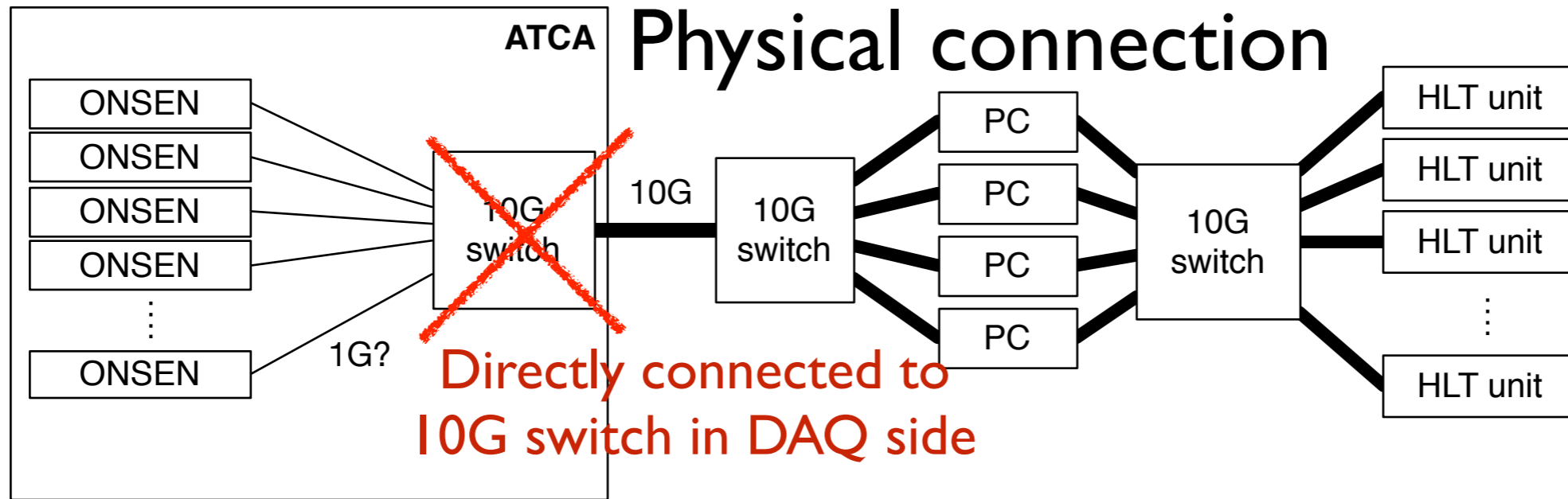


gave up this way

Fix 2

- Just change the buffer size for eb0,1,2
- Now E.B. are on this way

E.B.2 Schematic view



Installing

- 3 PC Servers
 - 11 slots PCIe3.0 x8
 - 2 ports Mellanox 40GbE
 - 4 ports Intel X520-DA2
- 2 full 10G Switches
 - ARISTA 7050X (48x10G + 4x40G)
 - 40 ports 1000SX for ONSSEN
- Power delivery

Partially installed, but

- No power outlet for ordinary 100V around optical patch panel to E.H.
- 1 Φ 200V seems to be available, but we need more L6-30A - C19 cables



Summary

- EB for ROPCs in cosmic test are unified
- EB2 installation is partially done
 - now ordering additional power cables