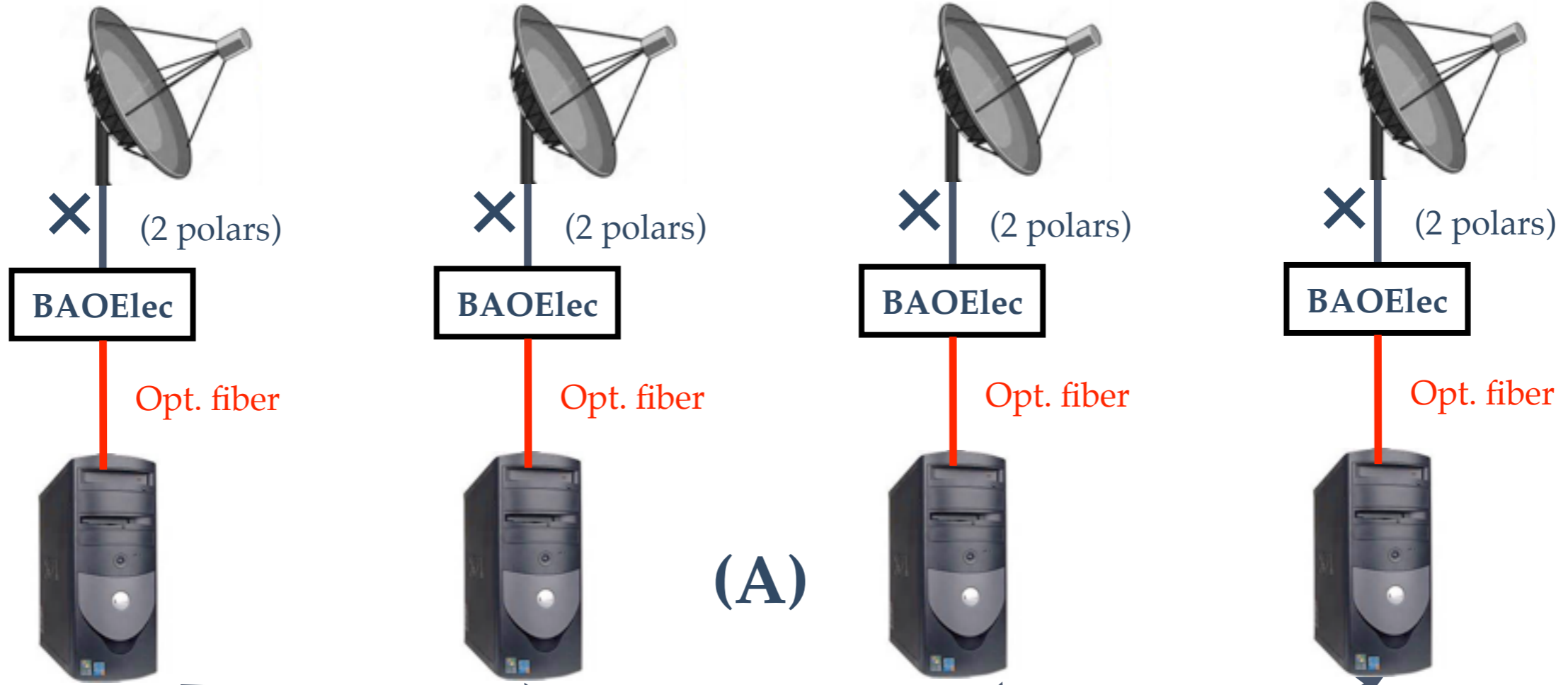


Acquisition PAON-4

Configuration des machines

Septembre 2014

**(B) Visibility
computing nodes**



(A)

**(A) Data reception/
dispatch nodes**



(B)

- ❖ (A-nodes) computers with PCI-Express data reception boards, one (A) computer / fiber (at least one / antenna, 2 polars)
 - ❖ Receive data from ADC-boards , split into frequency bands (N_f), send each frequency band to the corresponding Visibility computing node (B-nodes)
- ❖ (B-nodes) Visibility computing servers , one per frequency band (at least 2, bao3:R710, bao7:R720)
- ❖ A / B nodes connected through network switch(es) - possibly two 1 Gb / s ethernet card per A / B node

- ❖ @ 1 kHz data packet acquisition rate
- ❖ 2 polars (1 antenna) / fiber , 16 kB packet size
- ❖ 1 fiber / A-node : 32 MB / s input data rate (PICExpress) , 32 MB / s output on ethernet @ 1 kHz
- ❖ 2 B-nodes ($N_f=2$ freq. bands) , 64 MB / s input data rate on ethernet
- ❖ can handle 2.5 - 3 kHz acqu. rate using 2 x 1Gb / s ethernet interfaces / node

❖ A-nodes :

```
mfacq -pci2eth  
datacards:  
@pci2ethsplit N_Bands  
@pci2ethtargets B-node-1 B-node-2 ...
```

❖ B-nodes

B-node-1

```
mfacq -eth2visib  
datacards:  
@ethrnlink 4  
@ethrsplitband 0 2  
@ethrforcesamefc 0 0
```

B-node-2

```
mfacq -eth2visib  
datacards:  
@ethrnlink 4  
@ethrsplitband 1 2  
@ethrforcesamefc 0 0
```