

Vision for the Future

What have I learned from the SOS14
Workshop?

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uper computing systems



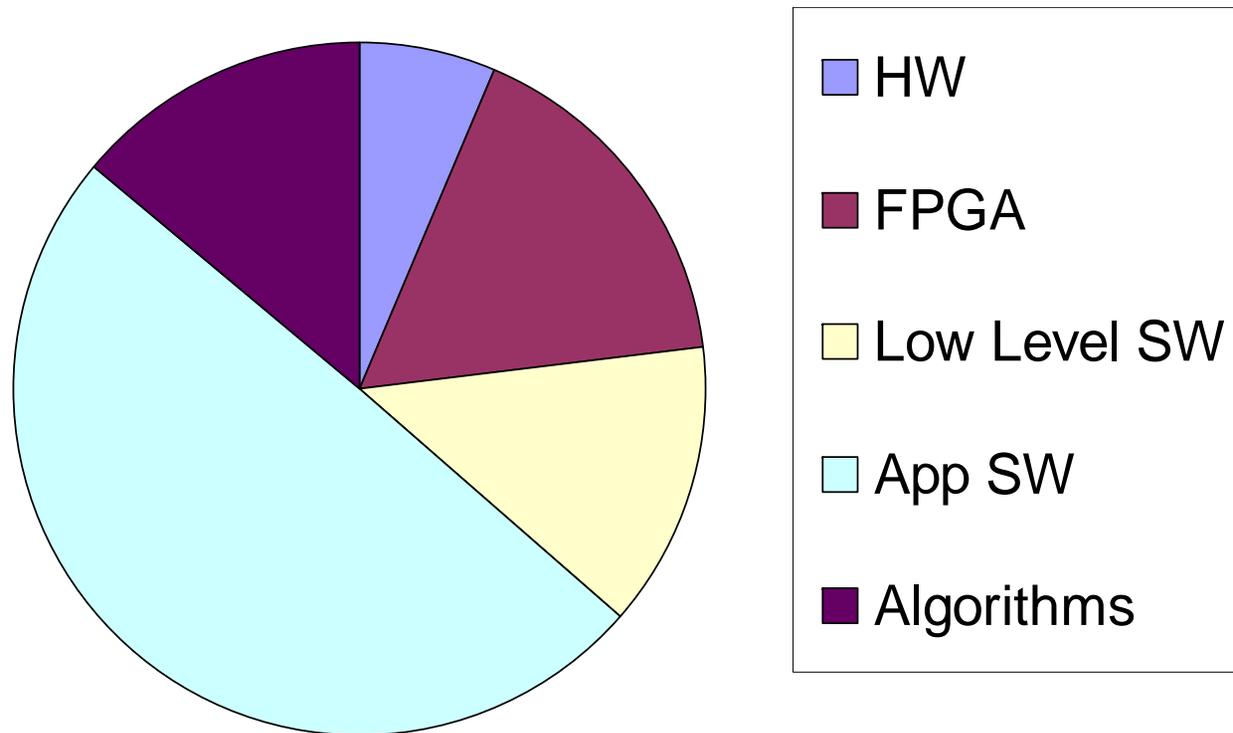
MUSIC (1992)

MUltiprocessor System with Intelligent Communication

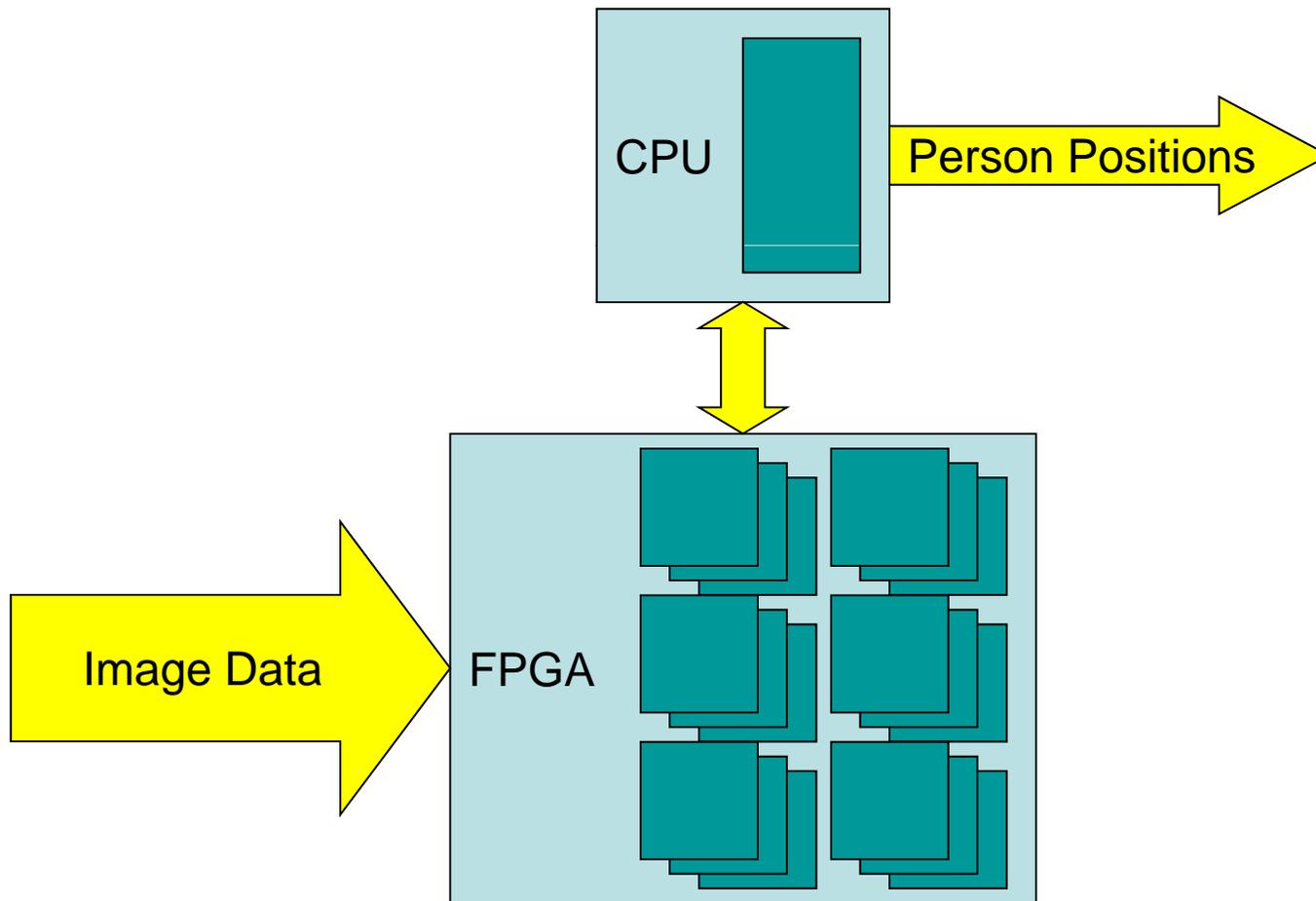


Supercomputing Systems Scientists & Engineers Skillsets

SCS Skillsets



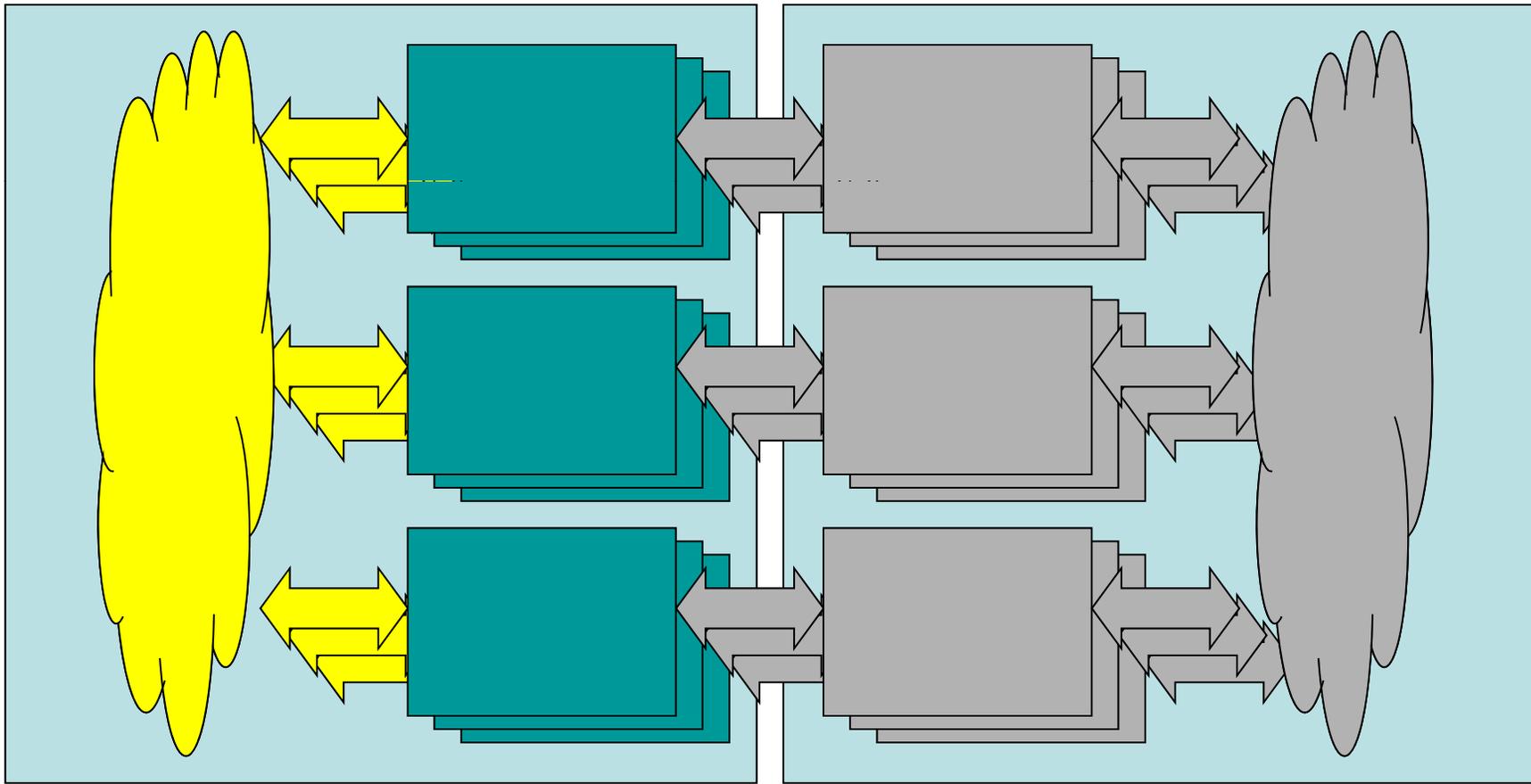
Example of a Commercial Application Hybrid Multicore Computing



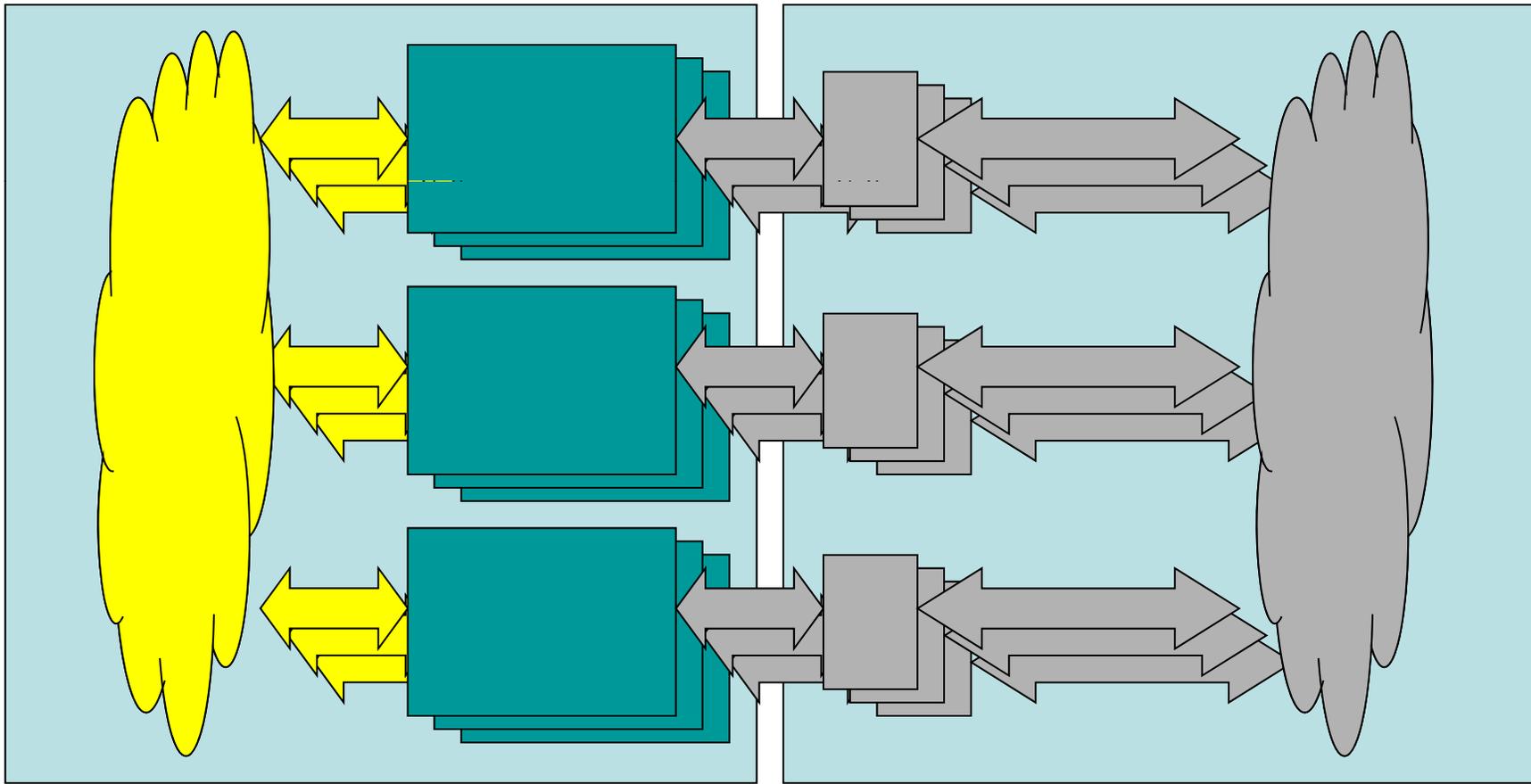
What have I learned @ SOS14 ?

- Resilience is a resilient issue.
 - Who is going to solve that issue?

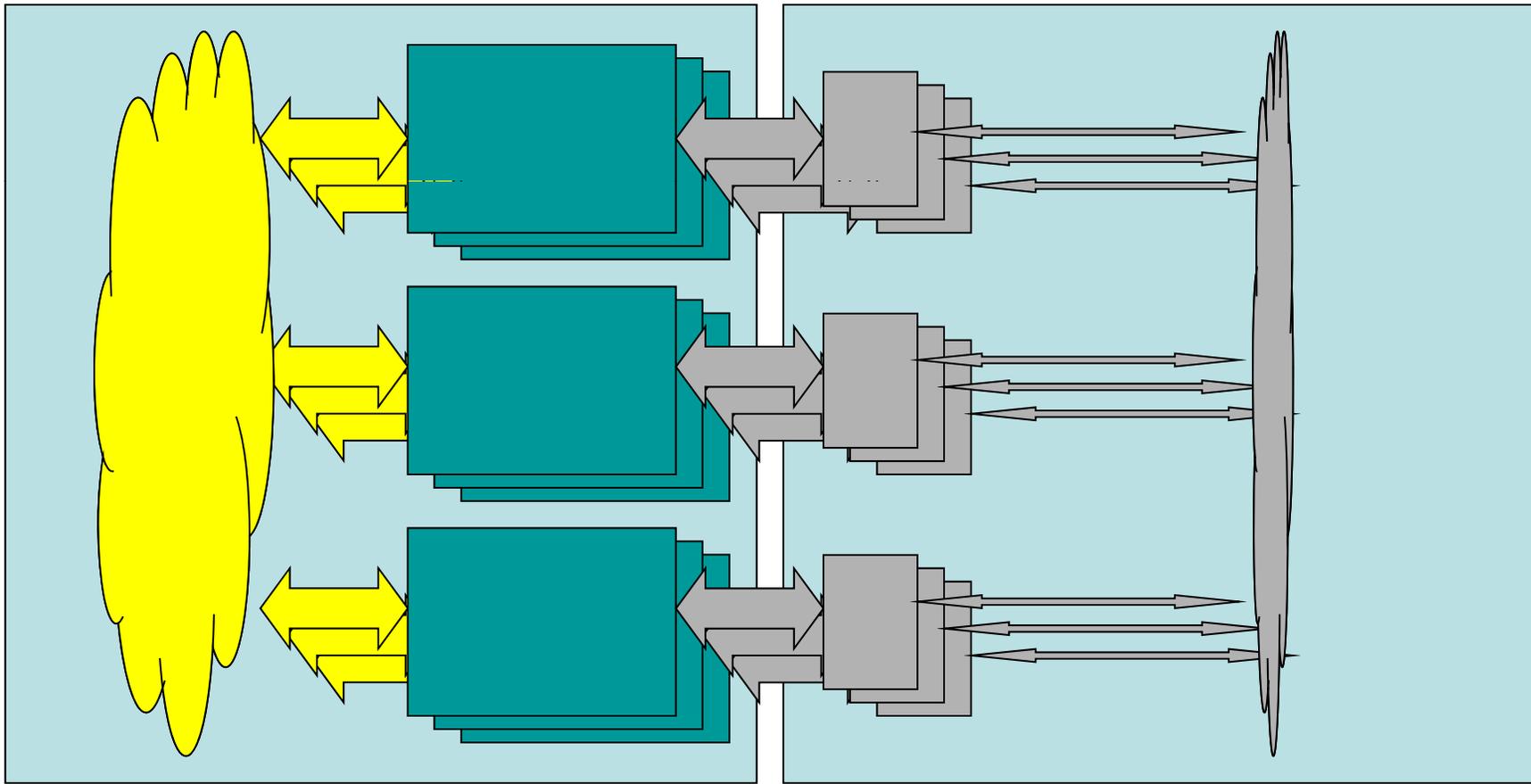
Resilient Nodes?



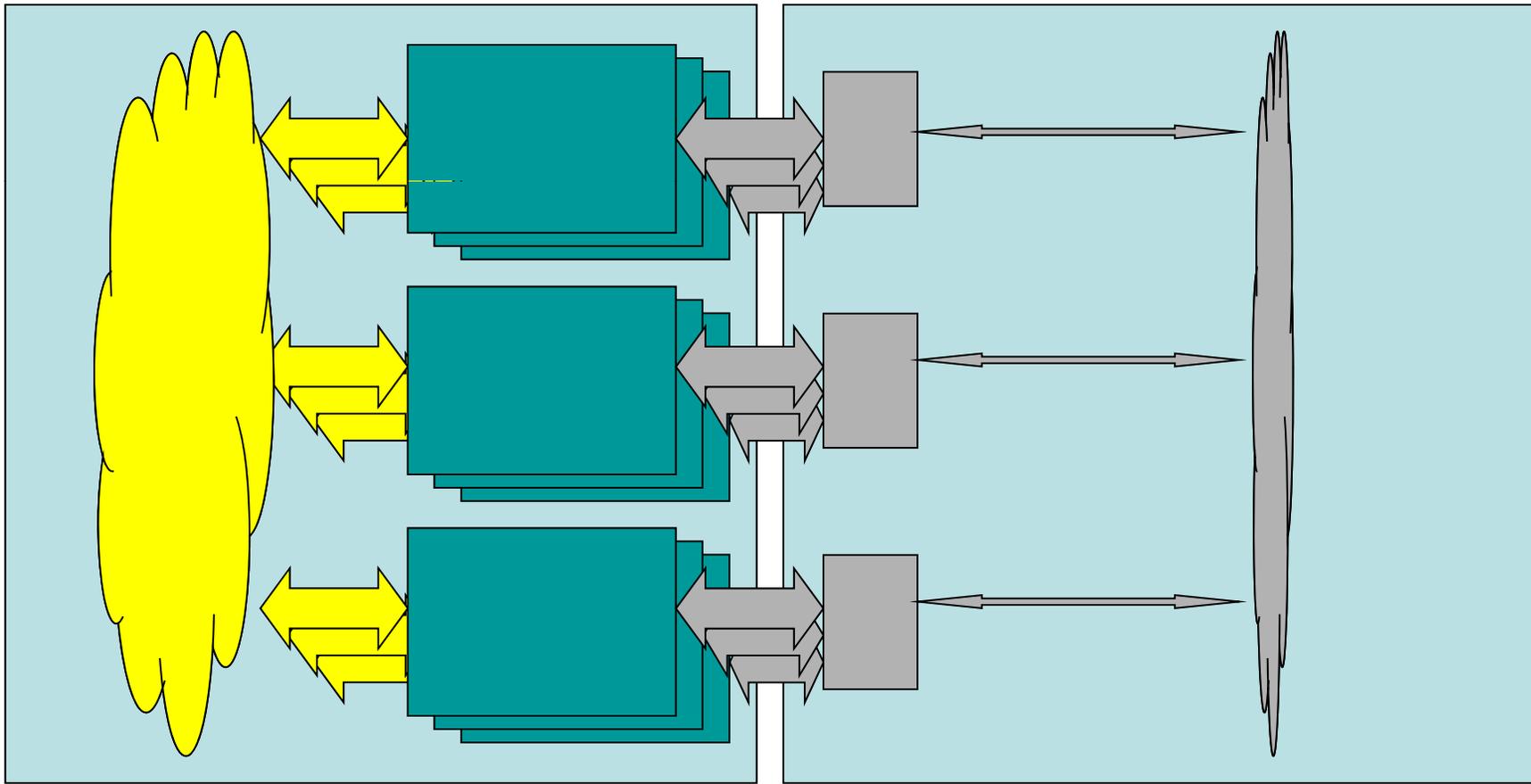
Resilient Nodes?



Resilient Nodes?



Resilient Nodes?



What else have I learned @ SOS14 ?

- The commodity-wave will not solve the interconnect bandwidth issue.

What is my Vision for Exascale Computing?

- It will be hybrid manycore.
 - Will it be GPGPUs??
 - The GPU market is evolving very fast and $O(100'000'000)$ pieces / year
- It will not be general purpose machines.
- Resilience will be built into the hardware & infrastructure SW.