Shared memory

ccNUMA:
- cache-coherent
- Non-Uniform Memory Access
Each blade contains 2 sockets for Itanium2 Montecito dual-core

SHub 2.0 with FSB at 533 MHz (*), 12 DDR2 memory sockets and 2 NumaLink4 channels (6.4 GB/s each)

(*) 16 bytes x 533 MHz = 8.5 GB/s
Altix 4700: Individual Rack Unit (logic)

Altix 4700: 32 and 64 processor system

6 x 6.4 = 38.4 GB/s = 3.84 GB/s/blade

8 x 6.4 = 51.2 GB/s = 2.56 GB/s/blade
- Systems larger than 32 blades require the use of additional dense router modules, with 4 8x8 crossbar ASIC → up to 256 compute blades
- Systems larger than 256 compute blades require additional Shubs that create 1D or 2D meshes (up to 4096 compute blades)

$8 \times 6.4 = 51.2 \text{ GB/s} = 1.28 \text{ GB/s/blade}$

- Altix 4700: up to 256 compute blades

$64 \times 6.4 = 409.6 \text{ GB/s} = 1.29 \text{ GB/s/blade}$

2 Cables per line