

CERN openlab II

The “openlab move”

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Why move? - The reasons



■ Cooling

- The ambient temperature in the CC is rising
 - Almost all cold aisles are enclosed now
 - More machines to be installed in CC → even higher temperature
- Temperature already very close to operating limit
 - Some machine already powered down because of overtemperature!!!

■ New systems arrived

- 3 blade enclosures have arrived (with 64 blades)
 - 1 enclosure with double density blades
- Very difficult to incorporate into existing setup

■ Consolidation of existing setup

- Retiring almost all Itanium servers with single core CPUs
 - Retiring old Xeon systems
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- The new setup
 - 20x Itaniums with InfiniBand for CFD
 - 24x Itaniums with InfiniBand for AB
 - 18x Itaniums w/o InfiniBand
 - 2x 4way Itaniums for I/O tests
 - 1x 8way Itanium
 - 14x existing Xeon systems
 - 3 new blade enclosures with Quad-Core Xeons
 - Test systems (beta-boxes, etc.)
 - 1 rack available and ready to be used (18 systems max.)
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- Three HP c7000 blade enclosures
 - Two enclosures with HP BL460c blades
 - Based on “Blackford” chipset, using FB-DIMM memory
 - SAS disks installed, one disk slot available
 - 31x 3GHz Harpertowns, 16GB RAM, 146GB 10k rpm disk
 - 1x 3GHz Harpertowns, 32GB RAM, 73GB 15k rpm disk
 - One enclosure with HP BL2x220c blades
 - Based on “San Clemente” chipset, using DDR2 memory
 - SATA disks, not hot-swappable, no space to add another disk
 - 32x 3GHz Harpertowns, 16GB RAM, 120GB 7.2k rpm disk
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- Openlab finally has a reasonable number of Xeons :-)
 - Allocation will (mostly) be **NOT** permanent!!
 - Current allocation
 - 20x BL2x220c (& 3-5 BL460c) for perfmon “production”
 - Tests, work shops, etc. - actual usage is subject to change
 - 2x BL2x220c & 2x BL460c for perfmon “development”
 - 2x BL2x220c for Xavier (replacing two old Xeons)
 - 1x BL460c for Xavier (Simic)
 - 1x BL2x220c for Xin
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