Status of Toronto Physics Parallel Computing Centre

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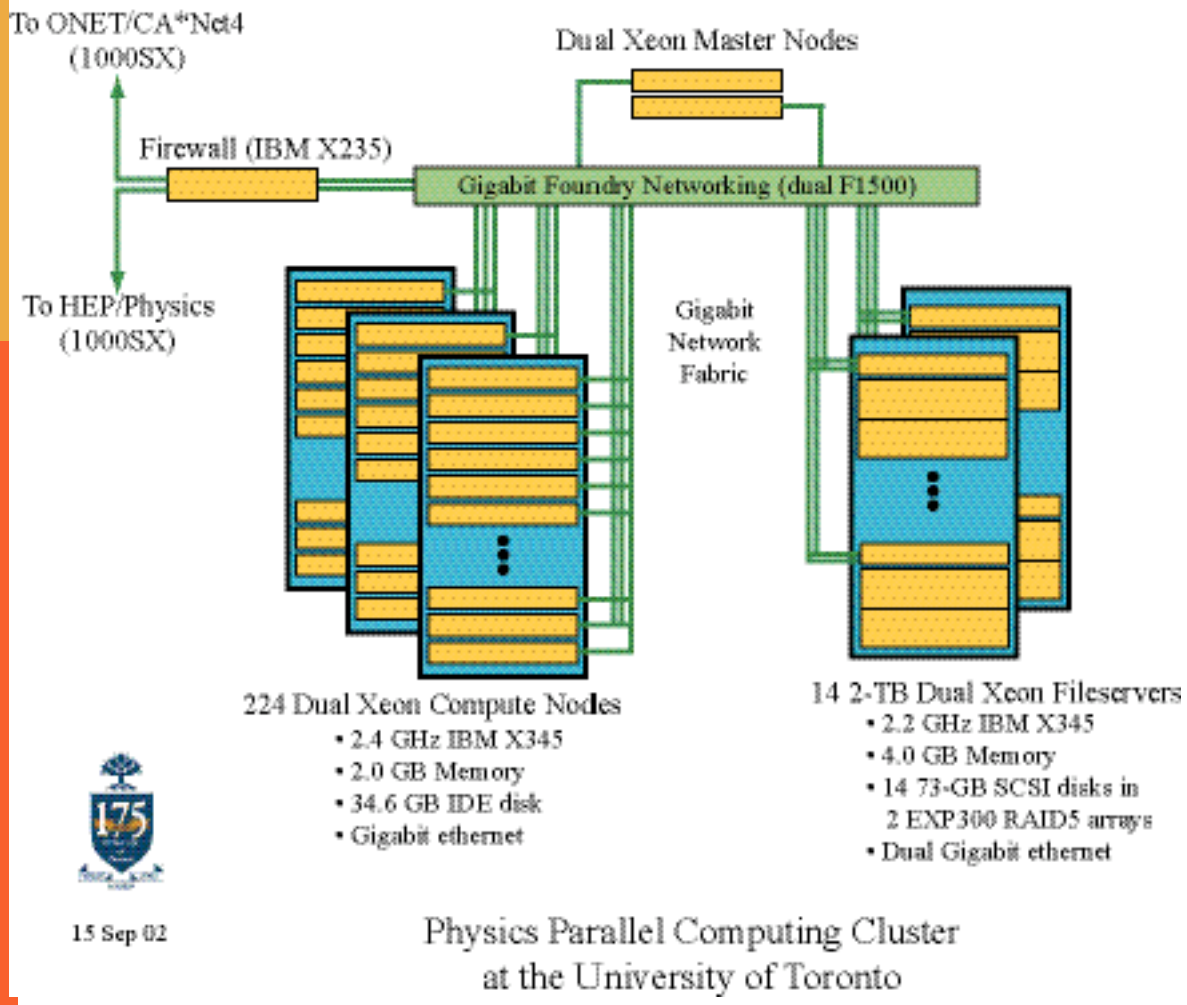
General Status of TPPCC

- **Have completed design phase**
  - **Ordered hardware**
    - 224 dual Xeon processors
      - **2.4 GHz**
      - **2 GB memory**
      - **36 GB IDE disk**
      - **GigE interface**
    - 14 dual Xeon fileservers
      - **2.2 GHz**
      - **4 GB memory**
      - **Dual GigE interfaces**
      - **2 EXP300 disk "drawers"**
        - **14 73-GB SCSI disks**
        - **Total of 1 TB disk each**
    - 2 master nodes
      - **2.2 GHz**
      - **2 GB memory**
    - Firewall machine
      - **IBM X245**
      - **Dual GigE interface**
      - **Gigbit fibre interface**

Schematic Description

- **System will comprise 14 racks**
  - **Most of it already delivered to CNS machine room**



MP 341 Preparations

- **Room preparations critical path**
  - **System generates about 100 kW**
    - Need 24 tons air conditioning
    - This is significant problem
  - **Power installation is complex**
    - Fileservers and master nodes on UPS system
      - **Allow system to power down**
    - Compute nodes are not protected
      - **Live with possible damage to compute nodes**
- **Room will be monitored**
  - **Heat sensor tied to CNS machine room**
  - **System itself will trip if over-temperature condition detected**
- **May take 6 weeks to complete**

Network Status

- **Have direct ONET connection**
  - **Gigabit fibre connection**
    - 10Base1000
    - Connected temporarily to Piranha
    - Will have direct connection to firewall machine
  - **University picking up cost for now**
- **Have tested transfer rates**
  - **Single ftp session: 3.5 MB/s from fcdfsgi2 to piranha**
  - **Increases to 8.5 MB/s with 3-4 ftp sessions**
  - **Installing network monitoring software**
  - **Looking at testing other protocols**
    - bbftp
    - Tsunami
    - GRIDftp

Next Steps

- **Acceptance criteria drafted**
  - **IBM will deliver final version this Wednesday**
- **Have to evaluate batch system**
  - **Natural candidate is FNSBG**
- **Install system in MP 341 once room is ready**
  - **Currently, looks like it will be latter part of November!**
  - **Looking at temporary installation of parts of system in CNS machine room**