



# PI2S2

Stato di avanzamento progetto

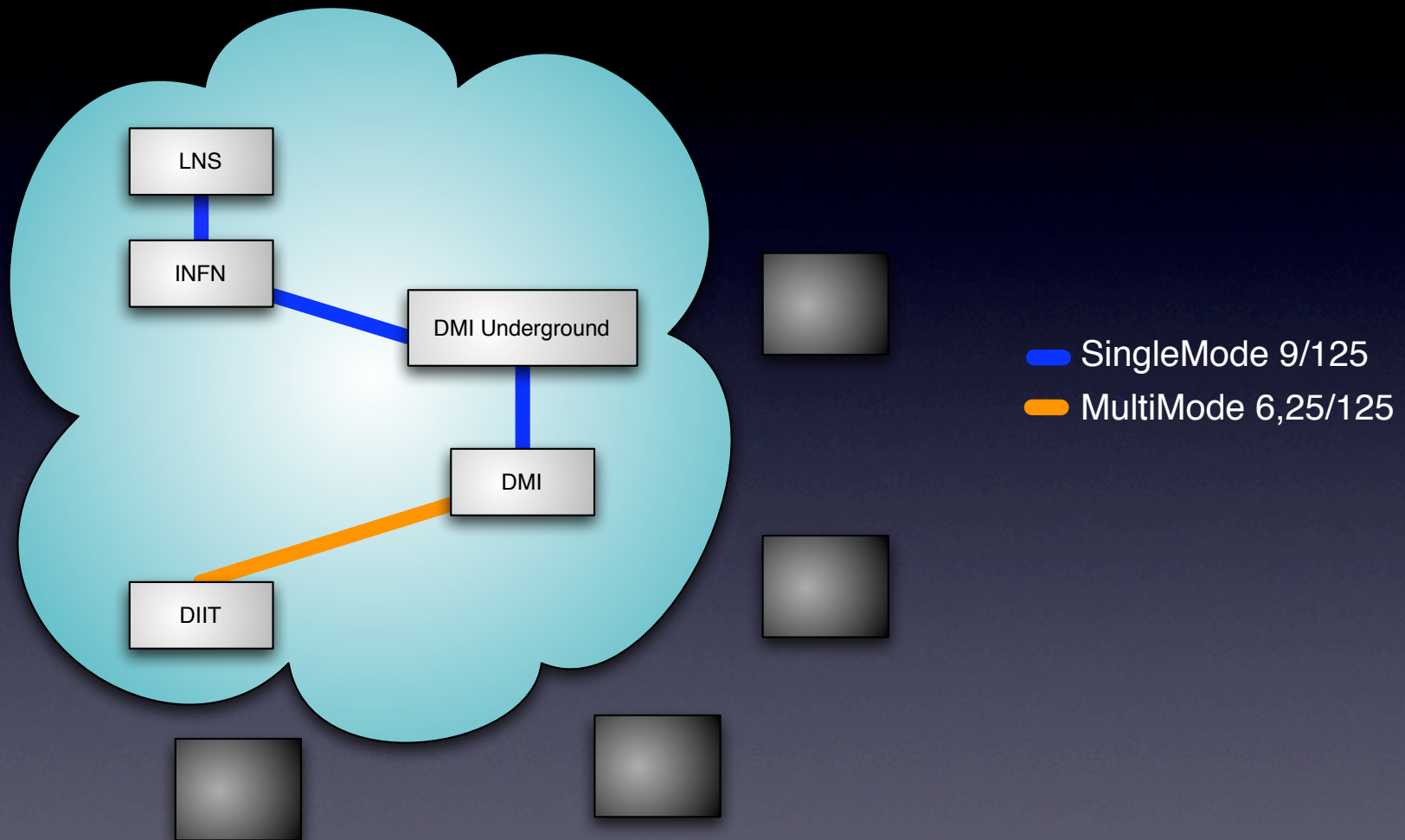
# L'infrastruttura di rete

- **SMR 9/125** (*fibra mono-modo*)
  - Tra SNI e DMI Underground
  - Tra DMI Underground e INFN
  - Tra INFN ed LNS
- **MM 50/125** (*fibra multi-modo*)
  - Tra SNI e DMI
- **MM 62.5/125** (*fibra multi-modo*)
  - In tutte le altre sedi





# L'infrastruttura di rete (2)

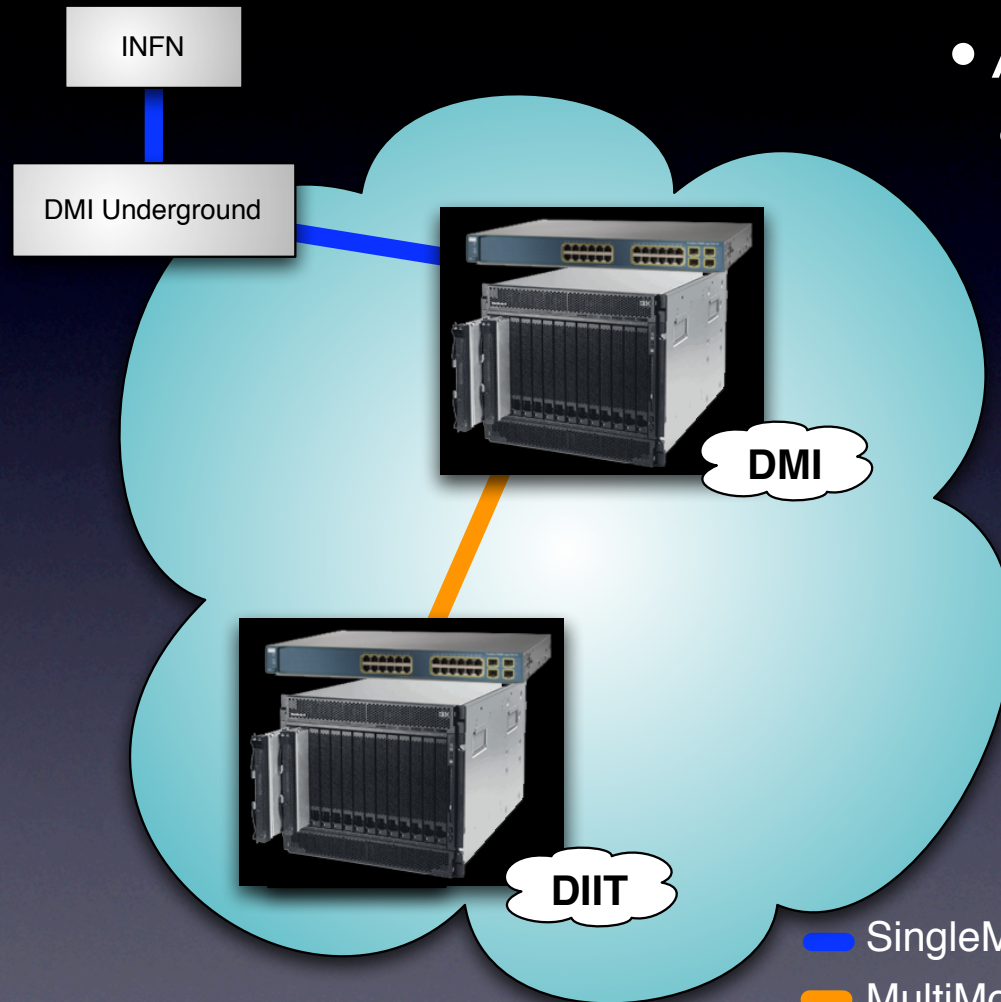


# L'infrastruttura di rete (3)

- 2x **Cisco 3560G (24pt.)**
- 3x **GLC-SM**



# L'infrastruttura di rete (4)

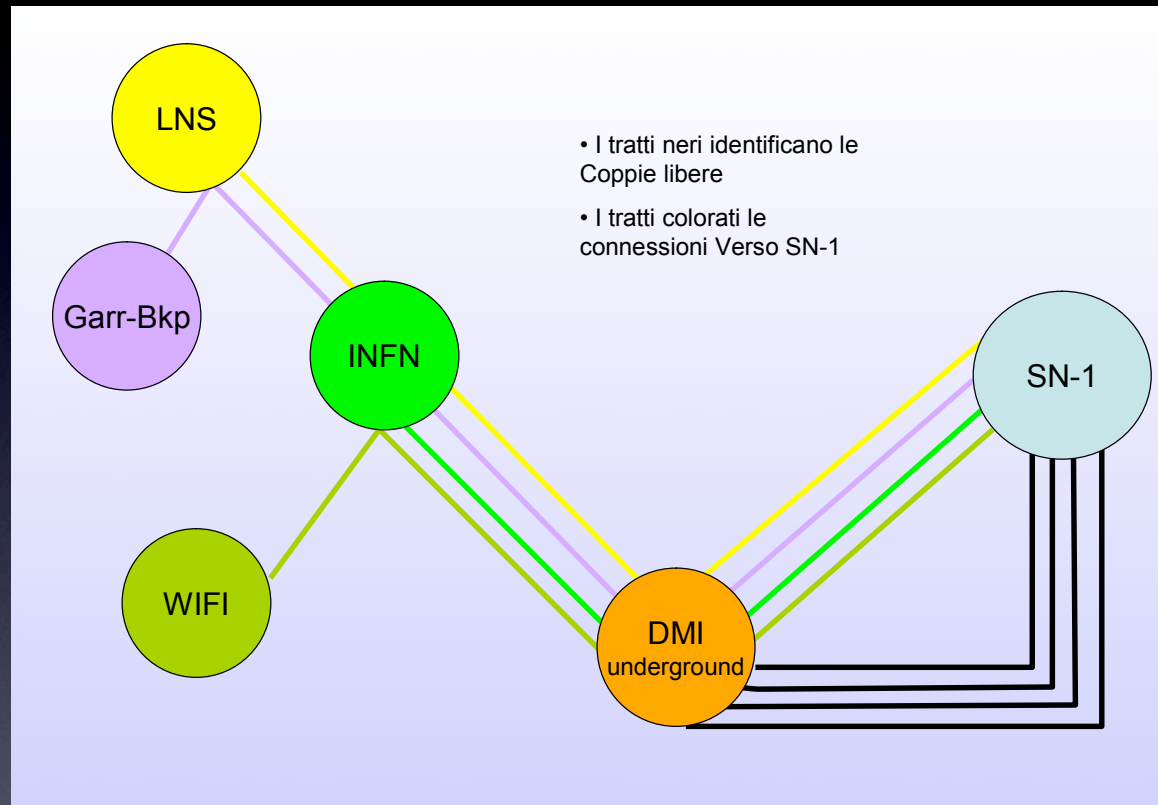


- Addressing from INFN:
  - 212.189.144.xxx





# L'infrastruttura di rete (5)

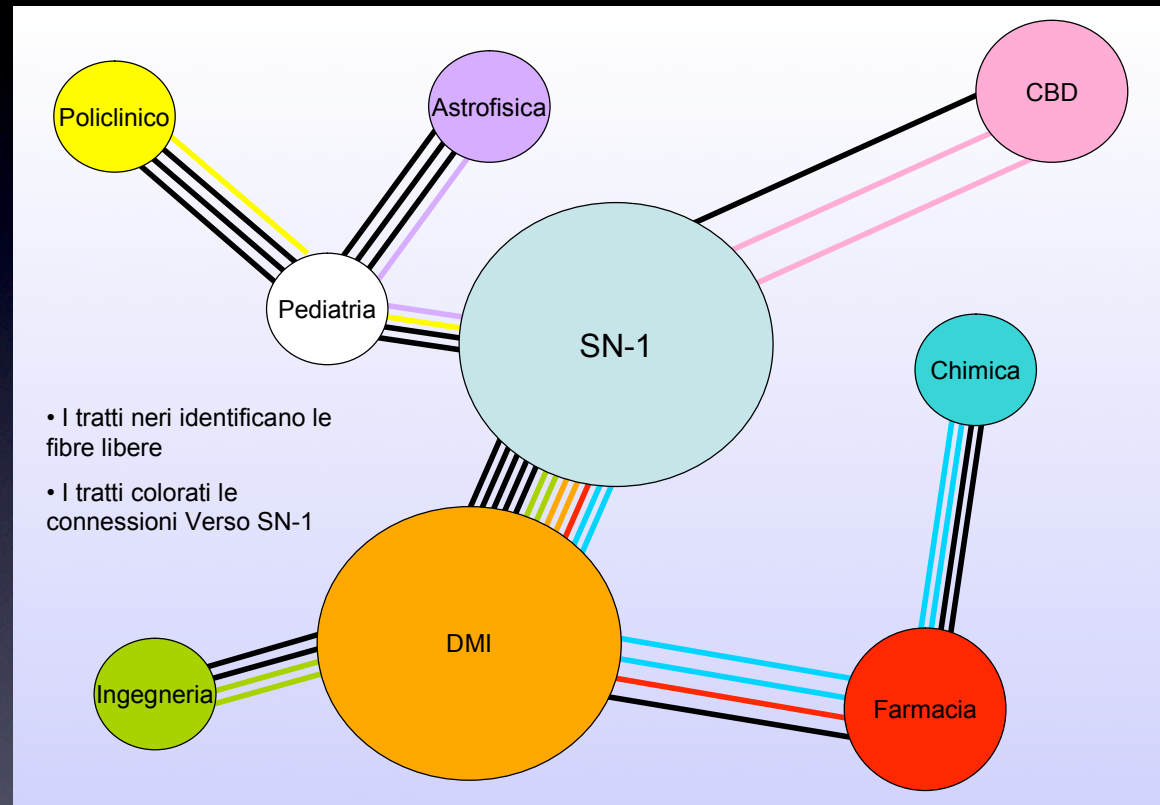


SingleMode 9/125

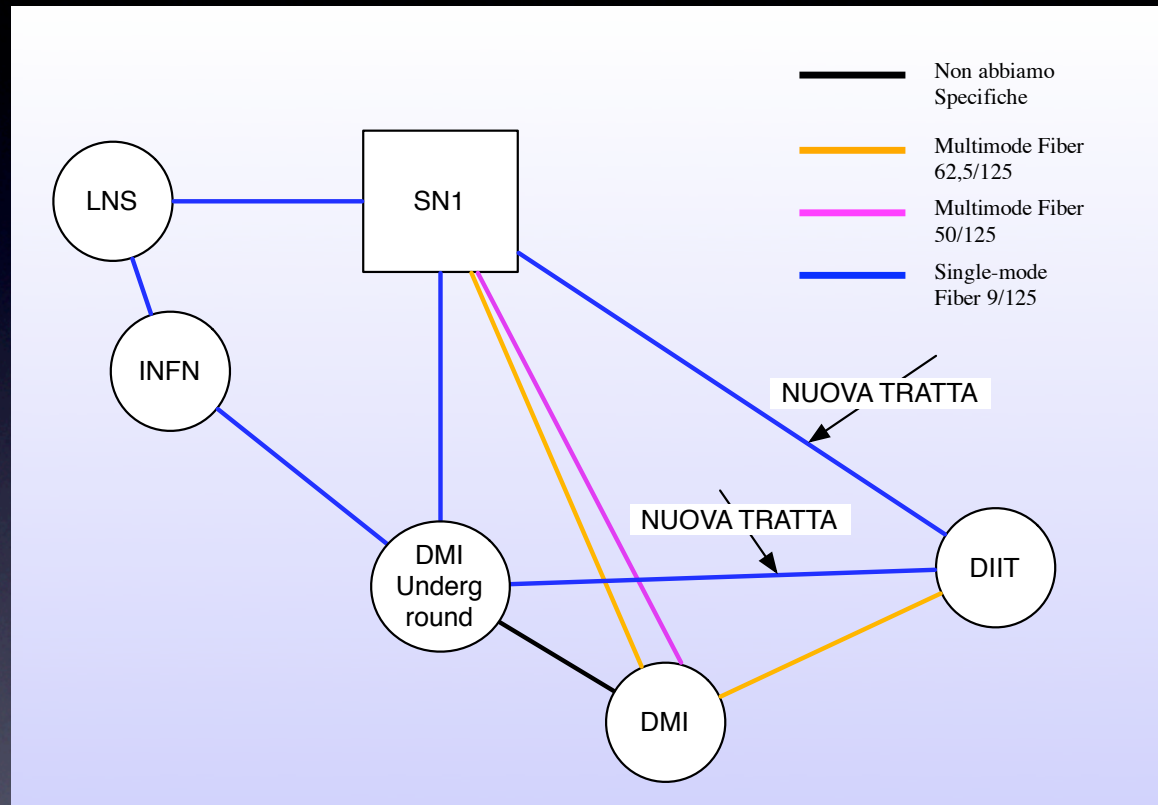
MultiMode 6,25/125



# L'infrastruttura di rete (6)



# L'infrastruttura di rete (7)



SingleMode 9/125

MultiMode 6,25/125





# L'infrastruttura di calcolo

- **DIIT**

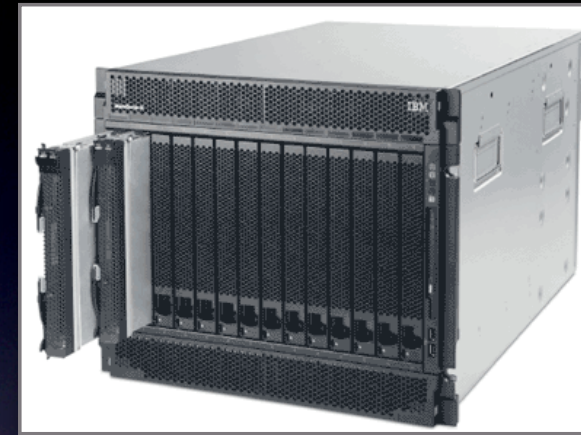
- APC NetShelterSX 42U

- Blade Center H

- **14x** Blades LS21 Opteron dual-core 2218 2.6GHz

- APC Smart-UPS RT 10000 (SURT10000XLI)

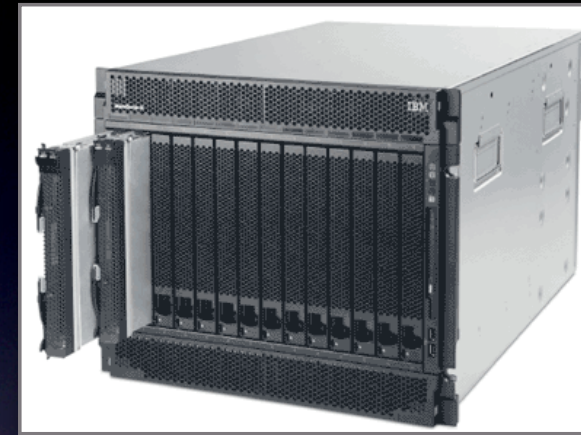
- **3x** APC Smart-UPS RT 192V Battery Pack (SURT192XLBP)



# L'infrastruttura di calcolo (2)

- **DMI**

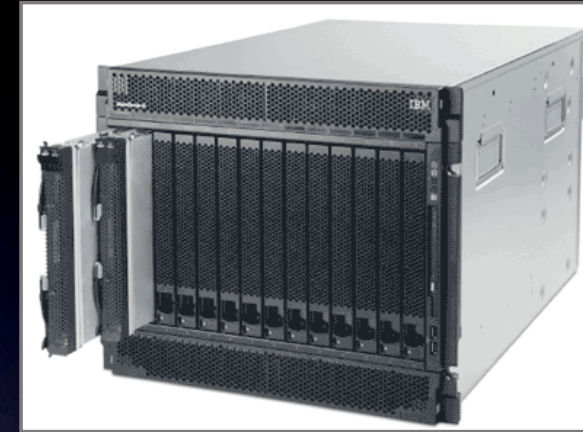
- APC NetShelterSX 42U
  - Blade Center H
    - **6x** Blades LS21 Opteron dual-core 2218 2.6GHz
  - APC Smart-UPS RT 10000 (SURT10000XLI)
  - **2x** APC Smart-UPS RT 192V Battery Pack (SURT192XLBP)



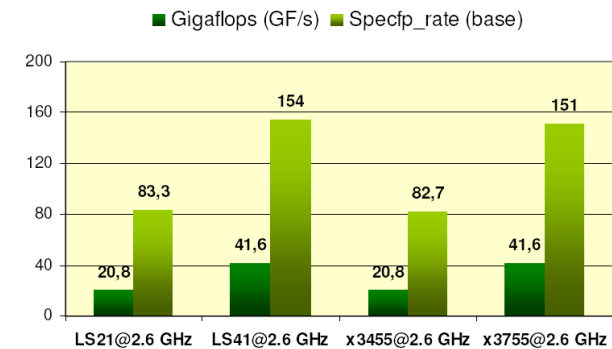


# L'infrastruttura di calcolo (3)

- 3200W idle power / 4900W max power
- 16600BTU/Hr
- Topspin Infiniband 4x HostChannel
- **DIIT:**
  - 52x AMD Opteron 64bit Arch
  - 48Gb Ram
- **DMI:**
  - 20x AMD Opteron 64bit Arch
  - 36Gb Ram

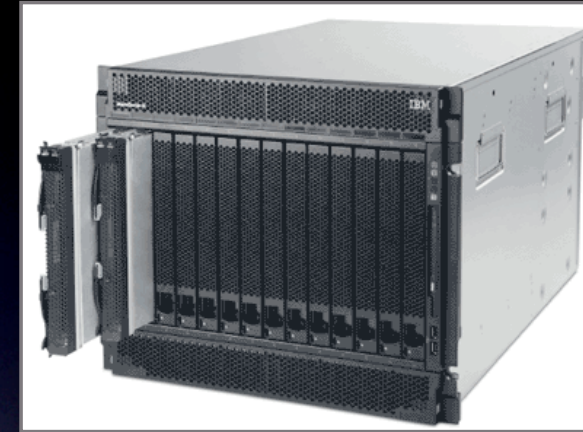


Full System (SMP) Floating Point Performance





# L'infrastruttura di calcolo (4)



- Capacità Computazionale Aggregata

<b>Sommatoria SPEC bmt in COMETA Requisiti minimi</b>	<b>Base</b>	<b>Results</b>
<b>CINT2000</b>	488370	553560
<b>CINT_rate2000</b>	5430	6150
<b>CFP2000</b>	598230	659910
<b>CFP_rate2000</b>	5570	6000



# Componenti Software

- SLC 4.4 / 3.0.8
  - **gcc** 3.2.x / 4.1.x
  - F77
  - F90
  - F95
  - **MPICH** 1.2.6 (**MPICH2**)
  - gLite 3.0+
  - *custom\_tools\_installation*





# Applicazioni Attuali

- INAF / Astrofisica (*vari*)
- Ingegneria Meccanica (*vari*)
- INFN / Simulazioni su microconduttori (*M. Camarda*)
- p2p / BitTorrent over NS2 (*C. Pistagna*)
- Immunologia Applicata (*E. Mastriani*)

