



CAF@Tier1 (CNAF): Update

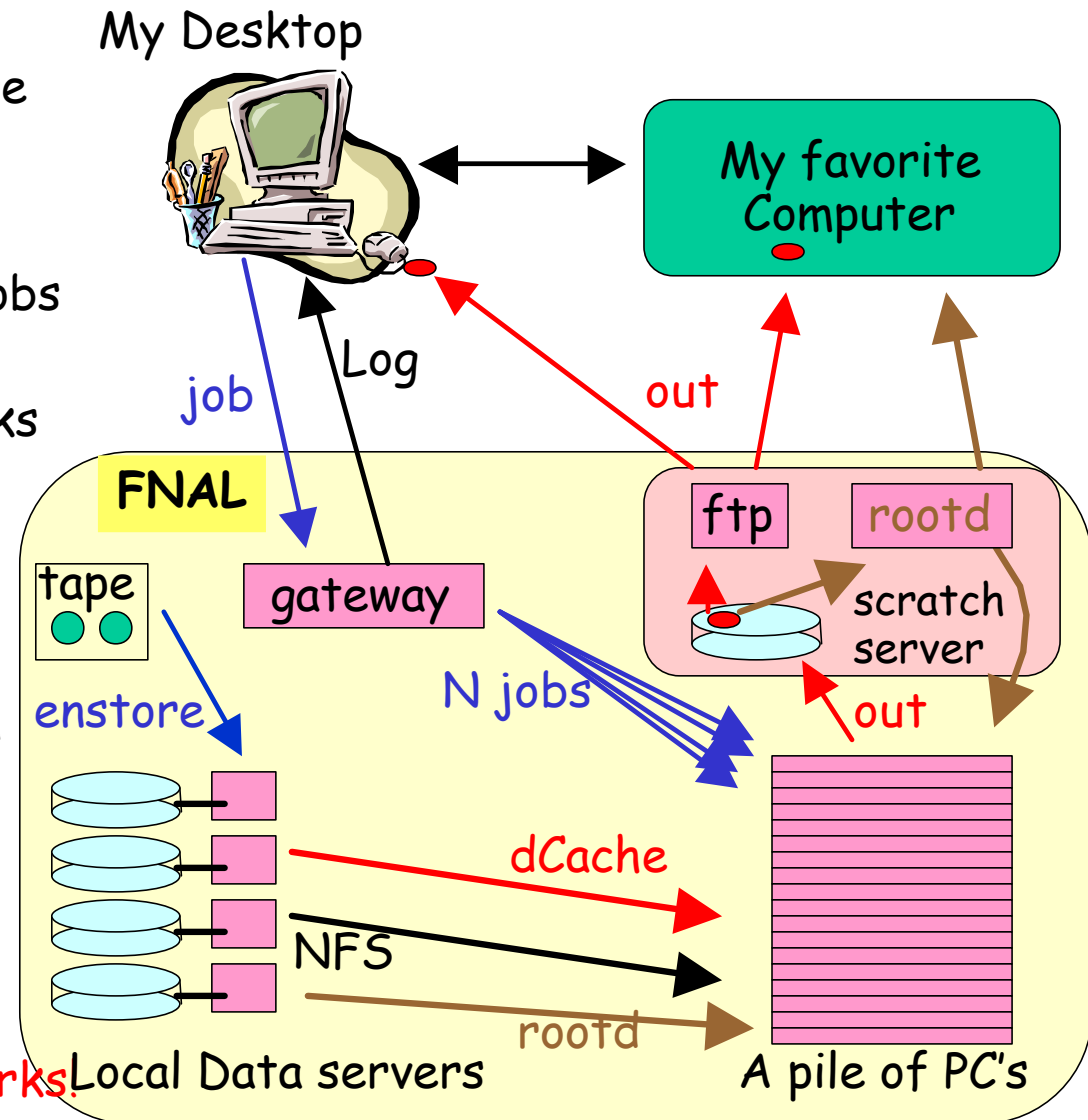
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Outline:

- Status: Report after one month of CAF@CNAF
- Plans for the future (Preparing Summer -Fall 2003)

CDF Central Analysis Farm

- Compile/link/debug everywhere
- Submit from everywhere
- Execute @ FNAL
 - Submission of N parallel jobs with single command
 - Access data from CAF disks
 - Access tape data via transparent cache
- Get job output everywhere
- Store small output on local scratch area for later analysis
- Access to scratch area from everywhere
- **IT WORKS NOW**
- Remote cloning in progress **works!**



CAF@CNAF:Status

Present configuration:

- One head node
- 5 Worker Nodes (CPUs = 2 x WN)
 - Using hyperthread 4 CPU/WN -> 20 CPU
- (we started with 2 WN)
- 1 Data server (900 GB)

It was easy to add (thanks Felice):

- new WN to CAF@CNAF.
- new users (10 users are enabled to run jobs)

CAF@CNAF: Monitoring

Monitoring from fbsng

FBSNG on the web
Farm: CDF CAF at CNAF
Time: Tue Apr 1 16:31:54 2003
Report: List of queues

All queues	Name	Status	Default Process Type	Share	Prio	Waiting	Ready	Running	Total
Active queues	bed	OK	short	1.00	0	0	0	0	0
Jobs	belforte	OK	short	1.00	0	0	0	0	0
Nodes	casarsa	OK	short	1.00	0	0	0	0	0
Process Types	giagu	OK	short	1.00	0	2	643	19	1077
Graphs	giorgio	OK	short	1.00	0	0	0	0	0
	ifedorko	OK	short	1.00	0	1	0	1	2
	lozi	OK	short	1.00	0	0	0	0	0
Refresh:	msn	OK	short	1.00	0	0	0	0	0
[auto/manual]	sandra	OK	short	1.00	0	0	0	0	0
	sidoti	OK	short	1.00	10001	0	0	0	0
	zanetti	OK	short	1.00	0	0	0	0	0

FBSNG

FBSNG on the web
Farm: CDF CAF at CNAF
Time: Tue Apr 1 16:33:42 2003
Report: List of farm nodes

All queues	Node name	Class	Status	Processes					
Active queues	wn-04-26-a	mailer	OK						
Jobs	wn-04-27-a	worker	OK	131.giagu.424.1	131.giagu.426.1	131.giagu.430.1	131.giagu.433.1		
Nodes	wn-04-28-a	worker	OK	131.giagu.425.1	131.giagu.427.1	131.giagu.429.1	131.giagu.431.1		
Process Types	wn-04-31-a	worker	OK	131.giagu.412.1	131.giagu.416.1	131.giagu.419.1	131.giagu.421.1		
Graphs	wn-04-32-a	worker	OK	131.giagu.408.1	131.giagu.410.1	131.giagu.426.1	138.ifedorko.1.1		
	wn-04-33-a	worker	OK	131.giagu.409.1	131.giagu.411.1	131.giagu.413.1	131.giagu.418.1		

FBSNG

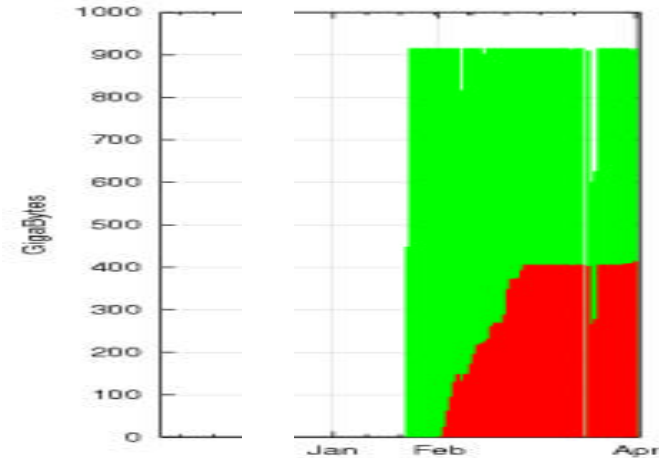
FBSNG httpd version 0.1

will be upgraded soon...

CAF@CNAF: Status II

Problems:

- Data access (e.g. need to copy $\sim O(400\text{GB})$ from FNAL to CNAF).
- We can increase transfer rates (peak transfer rate was $\sim 20\text{Mb/s}$)
- Only Central electrons dataset is copied. -> Estimate a $\times 2.5$ increase (forward electrons and muons)

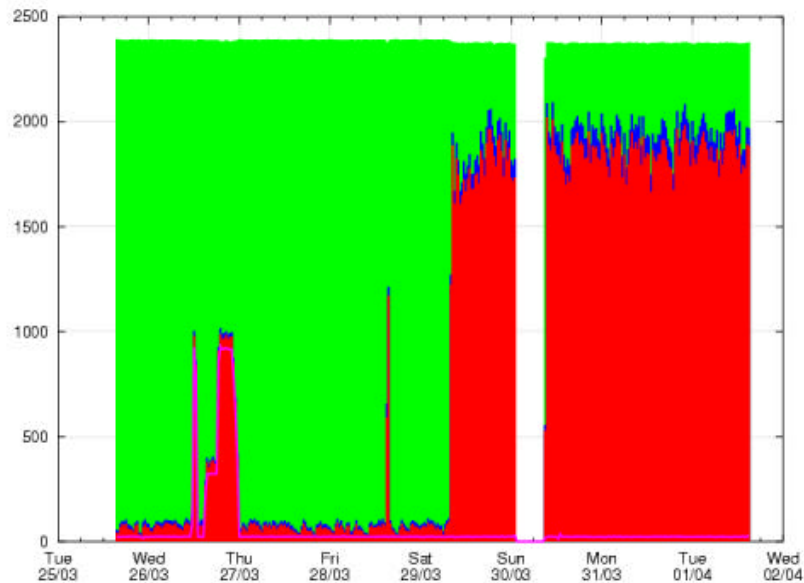


- For some jobs CPU time was 20% of real time. Job limited by I/O with nas4 and performance decreases as the number of process increases

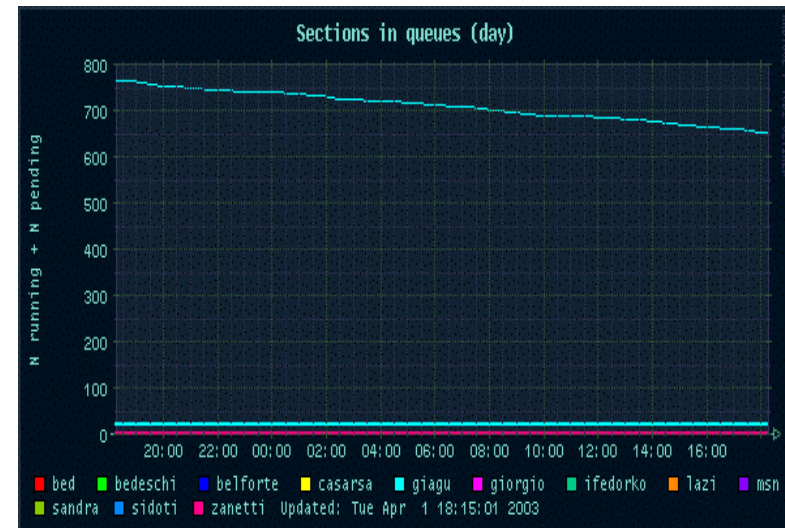
• Despite all we are happy and would like to increase CDF's hardware @CNAF

CPU status

Cpu status last week



1000 sections will finish
in 10 days!



Monitor available at:

<http://tier1.cnaf.infn.it/monitor/cdf>

<http://cdfhead1.cnaf.infn.it:8081>

CDF@CNAF: Plans

Wish list:

- expand CAF@CNAF up to 16-40 Worker Nodes (x3-x12 more CPUs)
- Expand Data Server up to 3-5 TBytes (Estimated 200 pb⁻¹ by June03).
- How much of this hardware can come from CDF? How much from Tier1?
->We should define the details: granularity of mass storage (part of big NAS? Payed by Tier1?). When to buy it?
- Time scale Summer-Fall 2003