

# Status of MC production in KNU

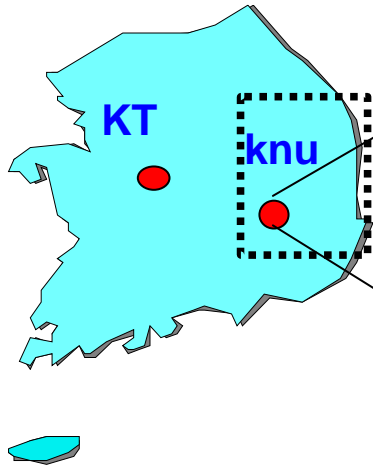
J. W. Shin, [G. N. Kim](#), and D. Son

CHEP,

Kyungpook National University, Daegu, Korea

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# CHEP Data Center at KNU



Space area :613 m<sup>2</sup>

## PC clusters and Storage in CHEP



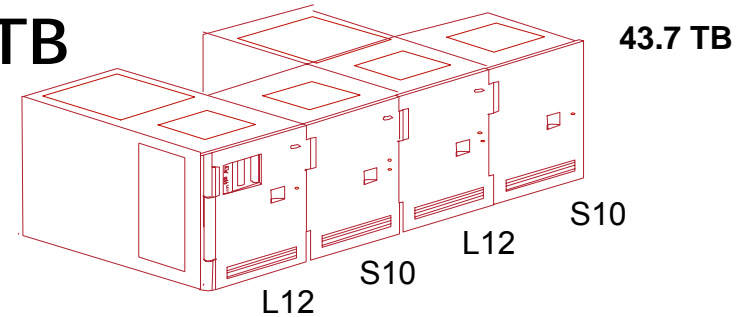
# Status of PC Cluster

- **Total Cluster: 183 cpu (120 nodes)**
  - **CDF: 59 CPUs (38 nodes)**
  - **Belle: 22 CPUs (11 nodes)**
  - **AMS: 36 CPUs (13 nodes at KNU + 5 nodes at KT)**
  - **CMS: 32 CPUs (25 PC)**
  - **Phenix: 22 CPUs (1 at KNU + 10 nodes at KT)**
  - **Grid testbed (DCAF, EDG, iVDGL) : 22 CPUs (11 nodes)**
  - **KT management machine: 2CPUs (1 nodes)**
  - **Network Test: 10 cpu (5 nodes)**
  - **etc (file, database, DHCP): 10 CPUs (6 nodes)**
  - **KT: Korea Telecommunication**

# Storage Status

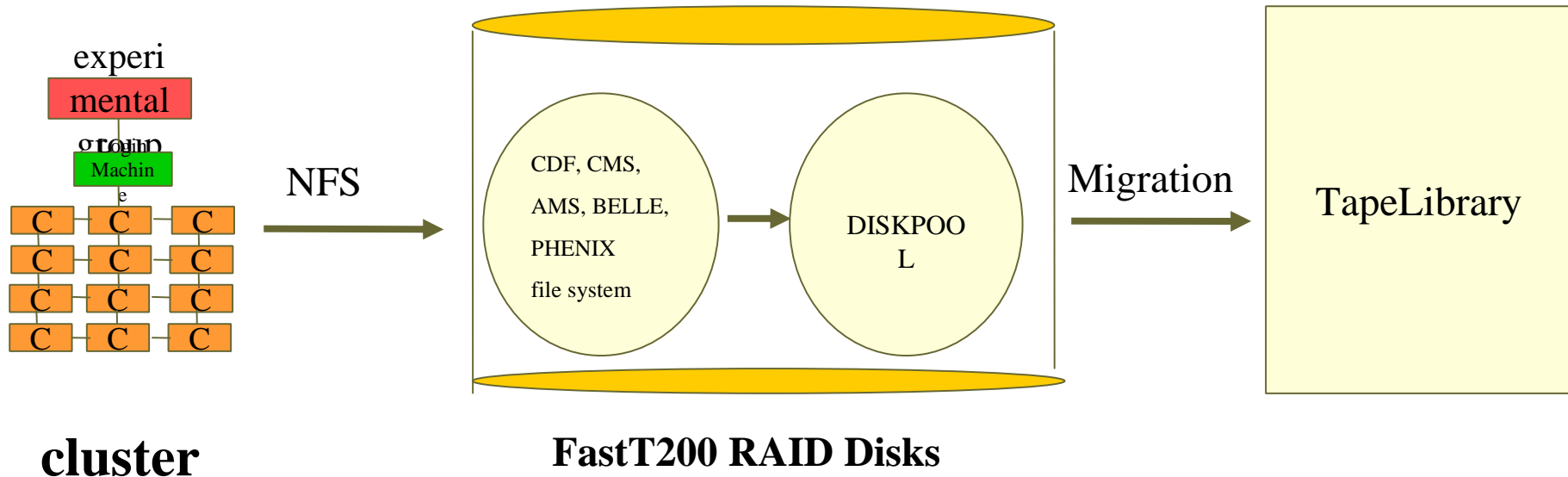
## ★ IBM TAPE LIBRARY SYSTEM - 43.7 TB

- ★ 3494-L12      8.4 TB
- ★ 3494-S10      13.537 TB
- ★ 3494-L12      7.36 TB
- ★ 3494-S10      14.4 TB

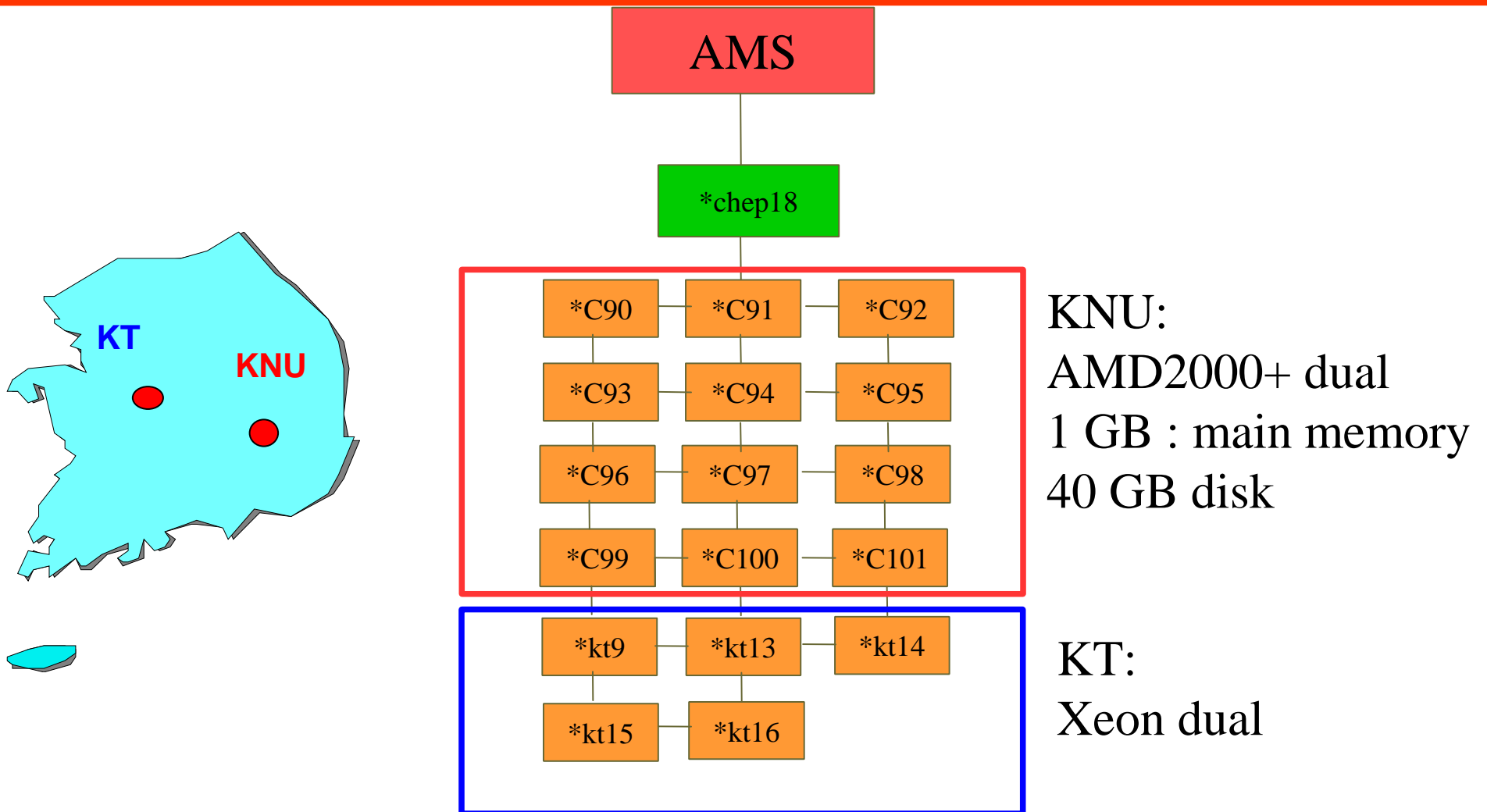


## ★ Raid Disks

- ★ Fast T200: 1 TB (Raid 0:striping)



# AMS Cluster (1)

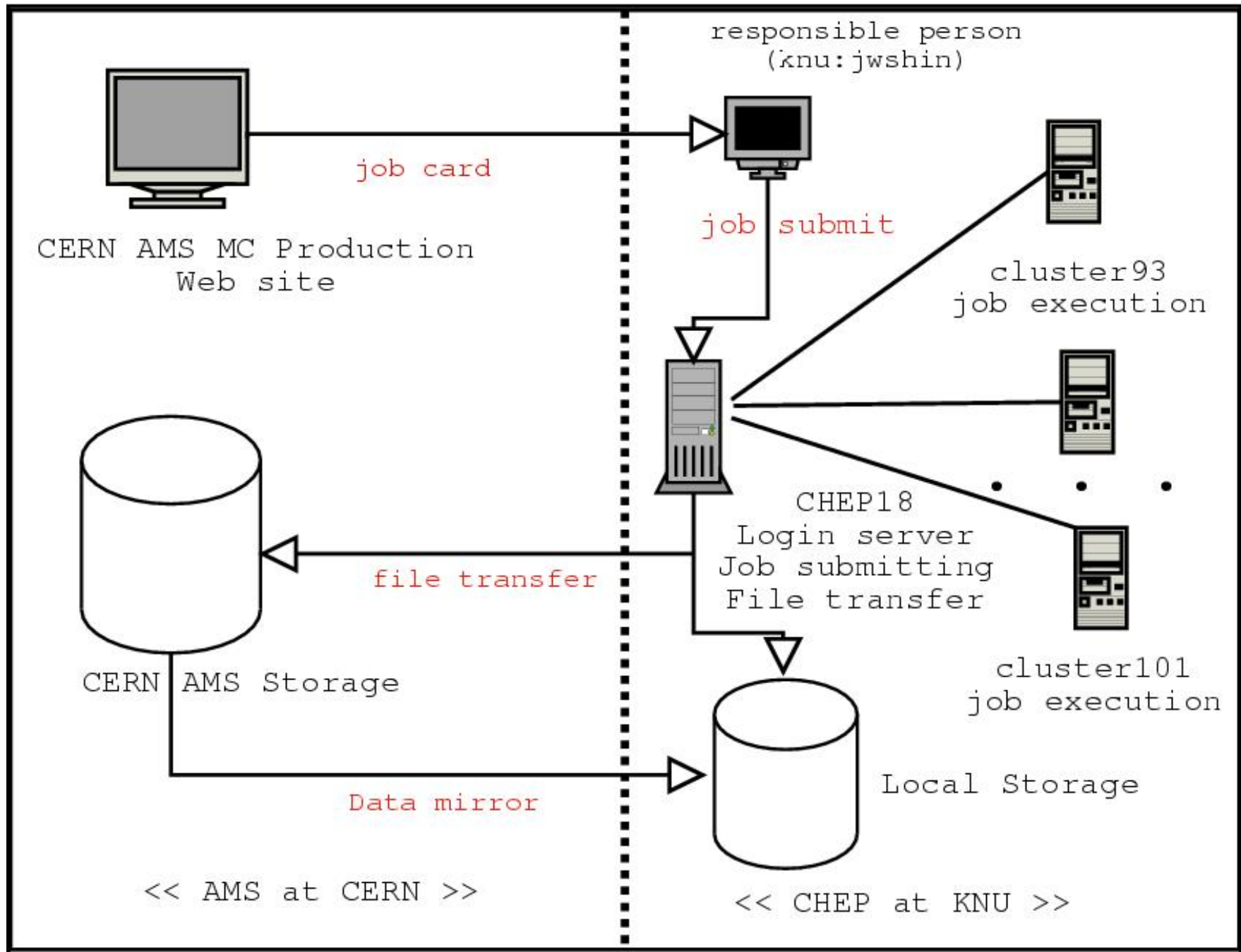


Cluster 90 ~ Cluster 101 were used for the AMS Experiment  
but C90 is used for network test

C97 is a problem

C100, C101 is used for FAI (Fully automation Installation)

# Setup for AMS Cluster - (2)



# Setup for AMS MC production



Select Parameters for Dataset Request	
Job Template	Dataset : Nick Name: MC02-dataset
Cite HW Parameters	CPU Type : Pentium IV CPU clock: 100 [MHz]
Job Parameters	<input type="checkbox"/> Force CPU Limit (Uncheck for NON-BATCH jobs) CPU Time Limit Per Job: 80000 seconds (Native) Total jobs Requested: 5 Total Real Time Required: 10 (days) run sequence number: 21351
MC Production Mode	<input type="radio"/> Standalone <input checked="" type="radio"/> Client
DST output format	<input checked="" type="radio"/> RootFile <input type="radio"/> NTUPLE
DST Transfer Mode	<input type="radio"/> Automatic <input checked="" type="radio"/> Manual
Script	<input type="radio"/> Custom (specific for the cite) ? <input checked="" type="radio"/> Generic (AMS generic)

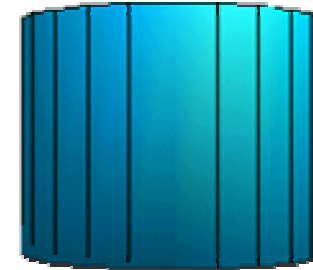
## uploading files to CERN via bbftp

```
bbftp -i list_root.*** -u 'jwshin' pcamsf2.cern.ch  
bbftp -i list_jou.*** -u 'jwshin' pcamsf2.cern.ch  
bbftp -i list_log.*** -u 'jwshin' pcamsf2.cern.ch  
{ speed : 1~9 MB/s }
```

**{chep18.knu.ac.kr:ams machine}**

```
gen_jobs.pl ams02mcscripts.tar.gz  
knu.***1.{PART#}.*.job  
knu.***2.{PART#}.*.job  
knu.***3.{PART#}.*.job  
knu.***4.{PART#}.*.job  
run.***.1.sh -> for submitting jobs to Queuing Server  
run.***.2.sh  
run.***.3.sh  
run.***.4.sh  
list_jou.*** -> control file will be used by bbftp  
list_log.***  
list_root.***  
after running, the gen_jobs.pl will check files and  
update list_jou, list_root, list_log .
```

gen\_jobs.pl (perl script)



CERN DB

# MC Production Status

total # request job : 229  
 # completed : 218  
 # job failed : 1  
 etc(unchecked,foreign) : 10

DST	#of request job	# of complete	#of uncomplete	DST size
Positron	15	15	0	3.3 GB
Electron	40	40	0	7.1 GB
Proton	99	94	5	29.5 GB
nuclear	40	35	5	4.7GB
C	20	19	1	5.5GB
He	15	15	0	5.0GB
<b>Total</b>	<b>229</b>	<b>218</b>	<b>11</b>	<b>55.1 GB</b>