

# **Current Status of CMS Tier-2 @ KNU**

**HyangKyu Park**  
**Kyungpook National University**  
**Daegu, Korea**

*CMS-KR Meeting*  
*KNU, Sep. 29, 2009*

# <http://t2-cms.knu.ac.kr>

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  - + KNU Account Registration
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## KNU Tier2 Center for CMS



Welcome to the CMS Tier2 Center at Kyungpook National University in Korea.



This web portal is your gateway to the CMS Tier2 center at Kyungpook National University (KNU) in Korea. This CMS Tier-2 center is being supported by the Ministry of Education, Science and Technology and is being maintained by the Center for High Energy Physics of the KNU. We will support the CMS computing needs for Korean and overseas collaborators. For your general comments, questions, or reports of any problems regarding to this Center, please email to [lcg\\_knu@knu.ac.kr](mailto:lcg_knu@knu.ac.kr).

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**THE CENTER FOR HIGH ENERGY PHYSICS**  
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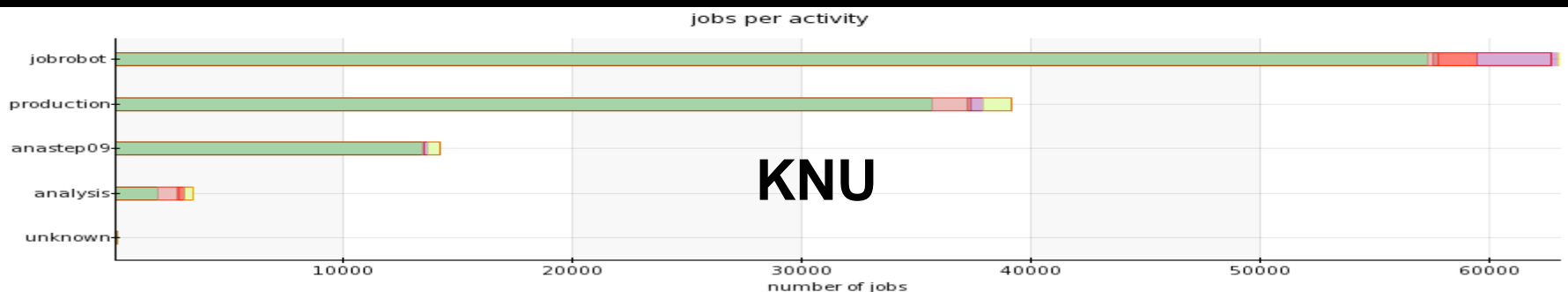
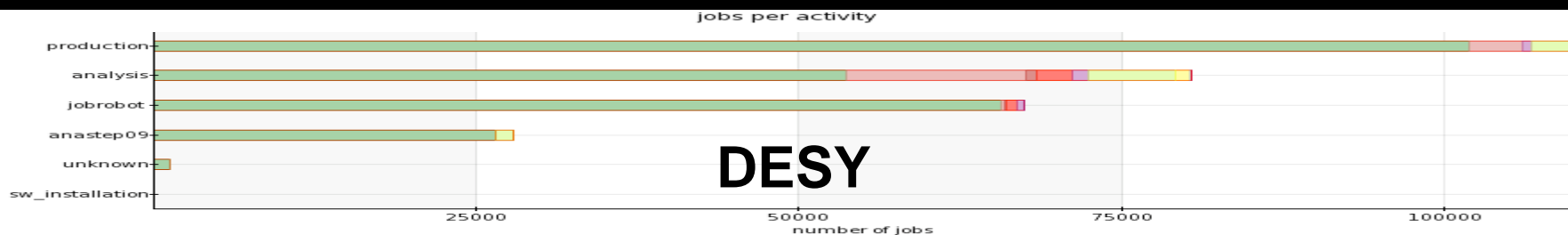
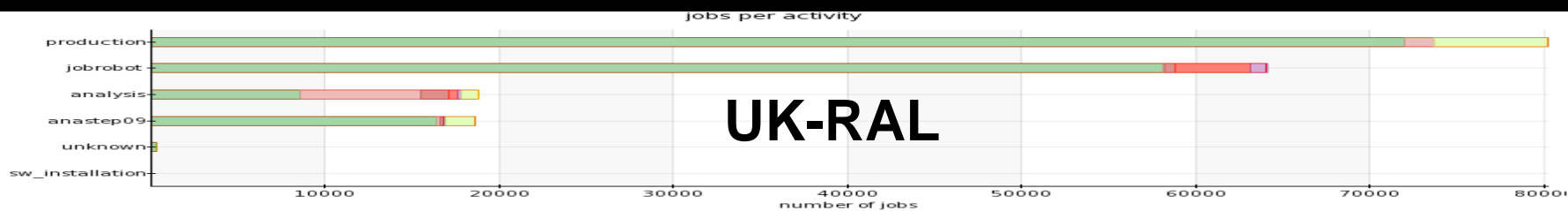
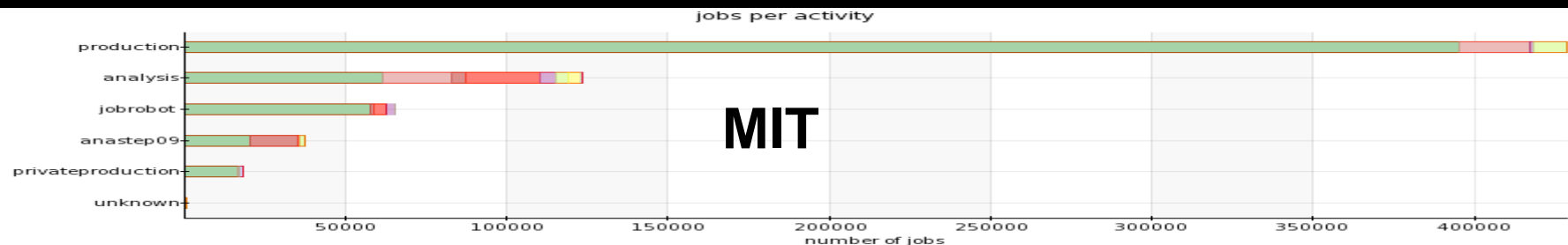


# CMS Computing Resources in KNU

	KNU
CPU (kSI2k)	400->500
Disk Storage (TB)	165->191 (16 of Disk Servers)
WAN (Gbps)	20
Grid System	LCG
CMS Computing Role	Tier-2

- Upgrade OS: SL4->SL5
- Old 32 bit PCs (70 kSI2k) are retired.

# Recent Performances in KNU-Tier-2 (I)

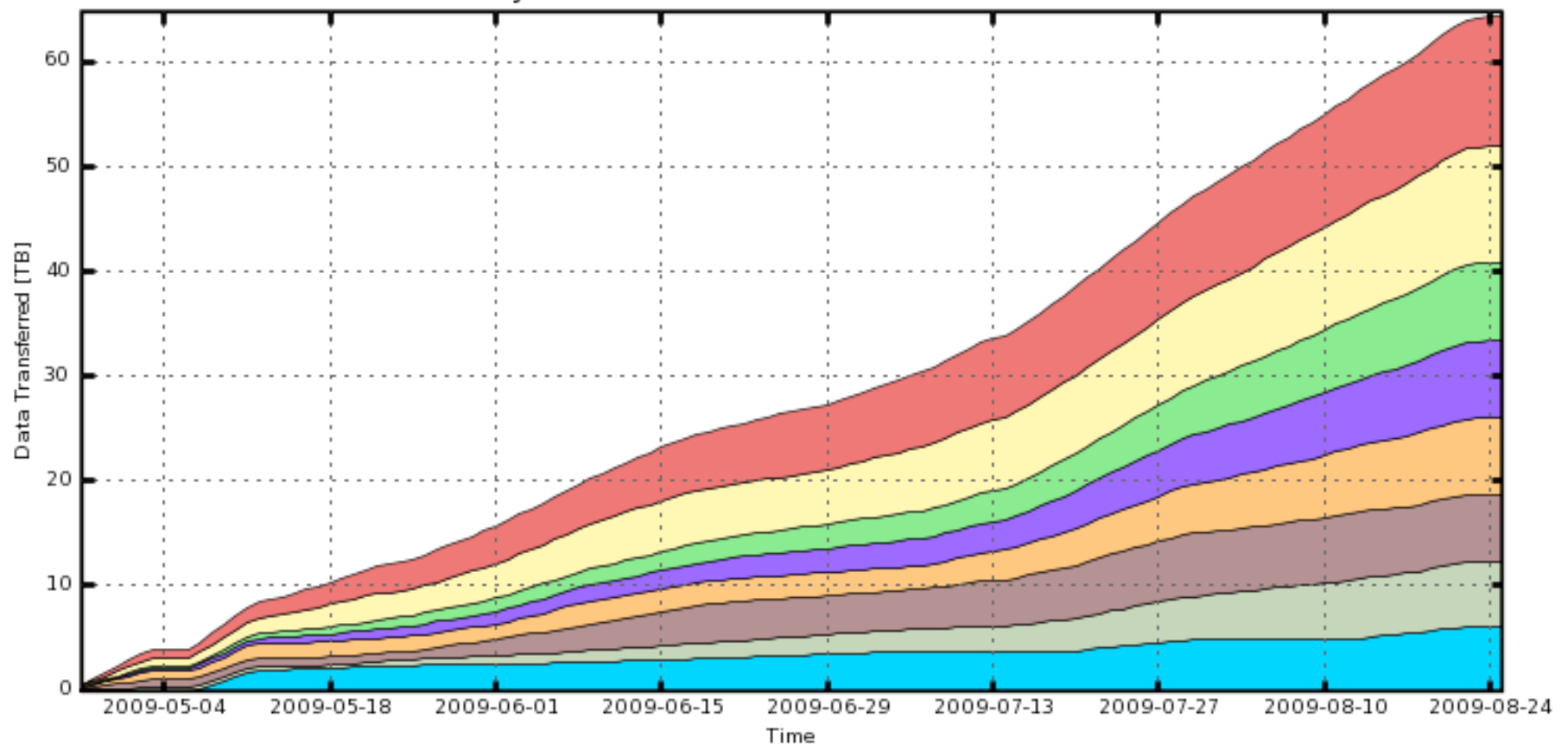


□ submitted 
 □ app-succeeded 
 □ application-failed 
 □ site-failed 
 □ aborted 
 □ cancelled 
 □ app-unknown 
 □ pending 
 □ running

# Recent Performances in KNU-Tier-2 (II)

## KNU -> T1

CMS PhEDEx - Cumulative Transfer Volume  
120 Days from Week 17 of 2009 to Week 34 of 2009



T2\_KR\_KNU to T1\_DE\_FZK\_Buffer  
T2\_KR\_KNU to T1\_US\_FNAL\_Buffer  
T2\_KR\_KNU to T1\_IT\_CNAF\_Buffer

T2\_KR\_KNU to T1\_TW\_ASGC\_Buffer  
T2\_KR\_KNU to T1\_ES\_PIC\_Buffer  
T2\_KR\_KNU to T1\_FR\_CCIN2P3\_Buffer

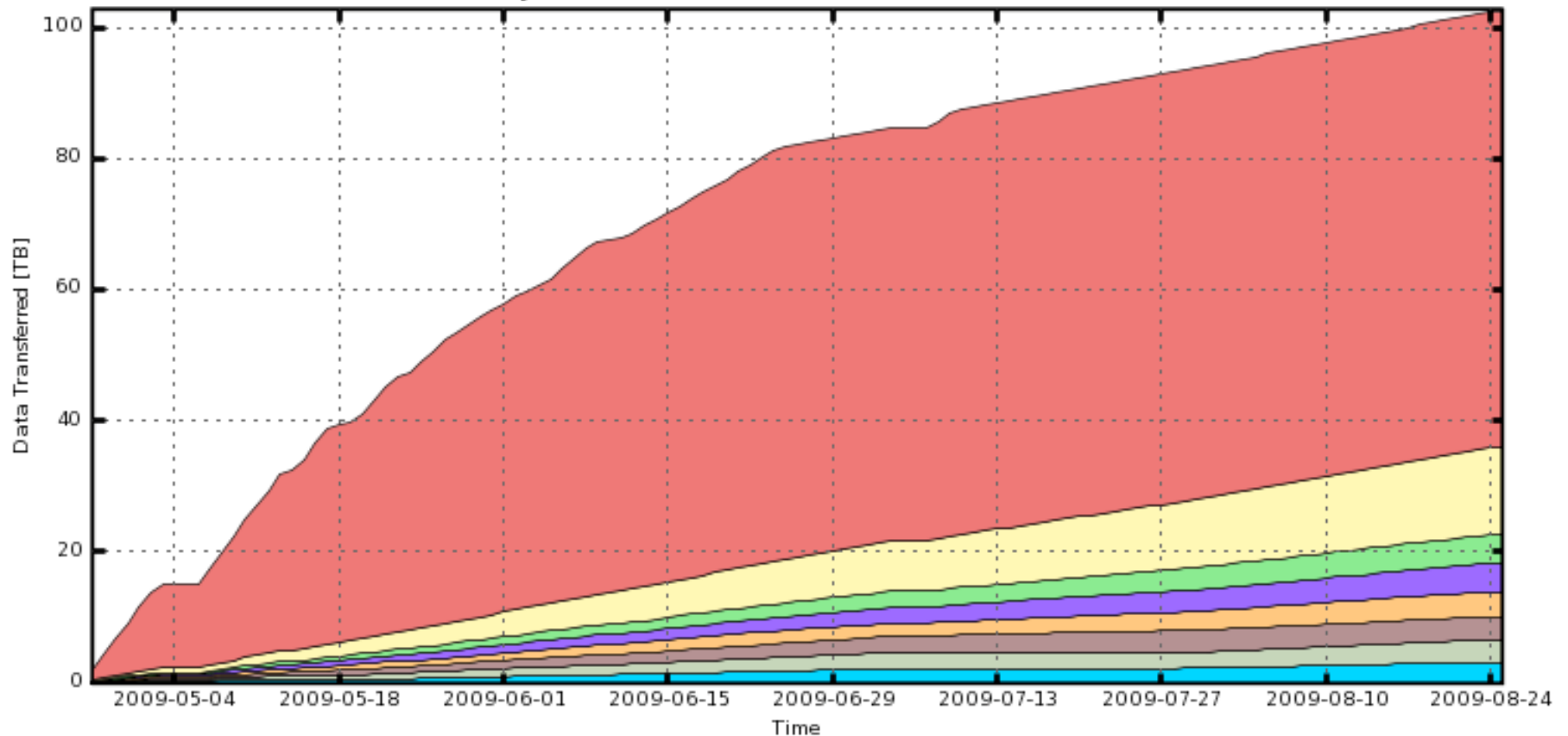
T2\_KR\_KNU to T1\_CH\_CERN\_Buffer  
T2\_KR\_KNU to T1\_UK\_RAL\_Buffer

Total: 64.37 TB, Average Rate: 0.00 TB/s

# Recent Performances in KNU-Tier-2 (III)

## T1 -> KNU

CMS PhEDEx - Cumulative Transfer Volume  
120 Days from Week 17 of 2009 to Week 34 of 2009



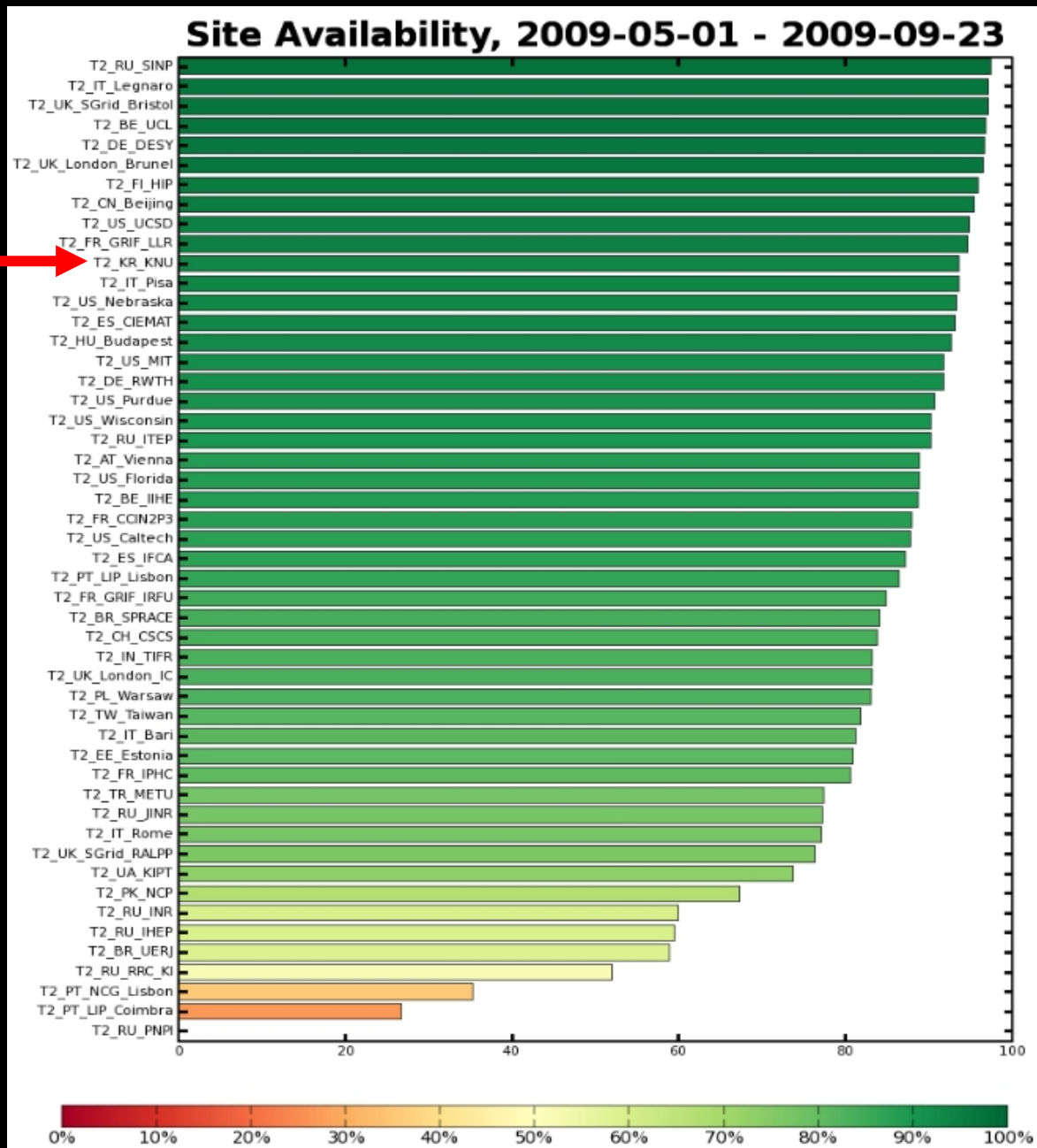
T1\_UK\_RAL\_Buffer to T2\_KR\_KNU  
T1\_CH\_CERN\_Buffer to T2\_KR\_KNU  
T1\_IT\_CNAF\_Buffer to T2\_KR\_KNU

T1\_US\_FNAL\_Buffer to T2\_KR\_KNU  
T1\_TW\_ASGC\_Buffer to T2\_KR\_KNU  
T1\_ES\_PIC\_Buffer to T2\_KR\_KNU

T1\_FR\_CCIN2P3\_Buffer to T2\_KR\_KNU  
T1\_DE\_FZK\_Buffer to T2\_KR\_KNU

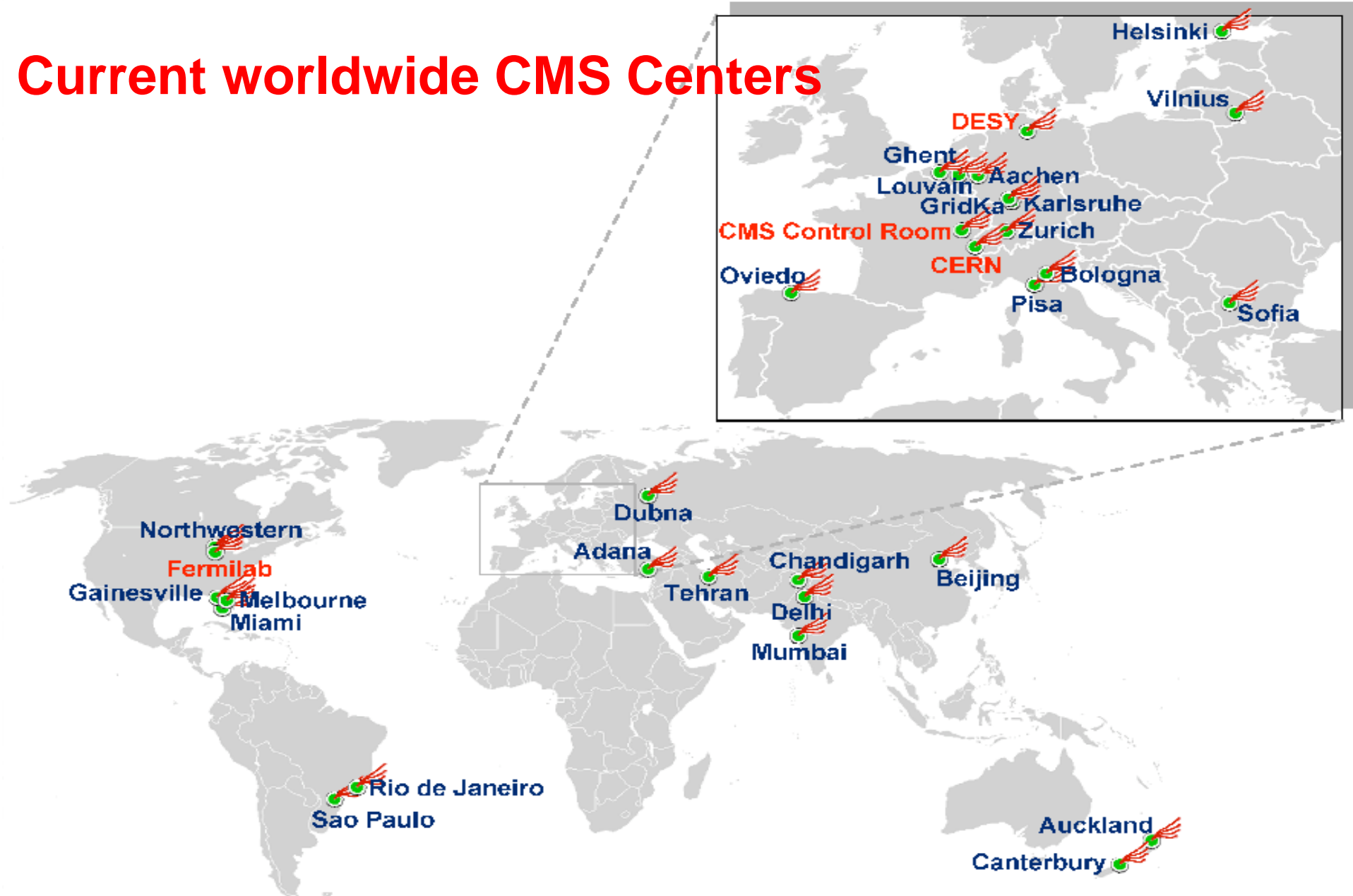
Total: 102.38 TB, Average Rate: 0.00 TB/s

# Tier-2 Site Ranking



# Establishing CMS Center (I)

## Current worldwide CMS Centers





# Establishing CMS Center (II)

- **Communication focal point for students, postdocs & faculties.**
- **CMS operations:**
  - **Sub-detector data quality monitoring**
  - **Data analysis**
  - **CMS computing operation**
  - **Remote shift**
- **Outreach Activities:**
  - **Increase CMS visibility**
  - **Attract new students**
  - **Tour and discussions with physicists**
  - **Live display, posters and other exhibits**

# Summary

- **Tier-2 at KNU is running correctly**
- **Computing resources:**
  - **CPU: 500 kSI2k**
  - **Disk: 191 TB**
  - **WAN: 20 Gbps (KREONET:10 G, KOREN:10 G)**
- **Local user support**
  - **RS Graviton search by Dr. Chung, J.H.**
  - **W' study by Chang, S.H.**
  - **CRAFT09 cosmic ray data analysis by Hur, S.G.**
- **We are willing to support KR-CMS users.**