



PK-CIIT
Grid Operations in Pakistan
COMSATS

Ahmad
Site Admin

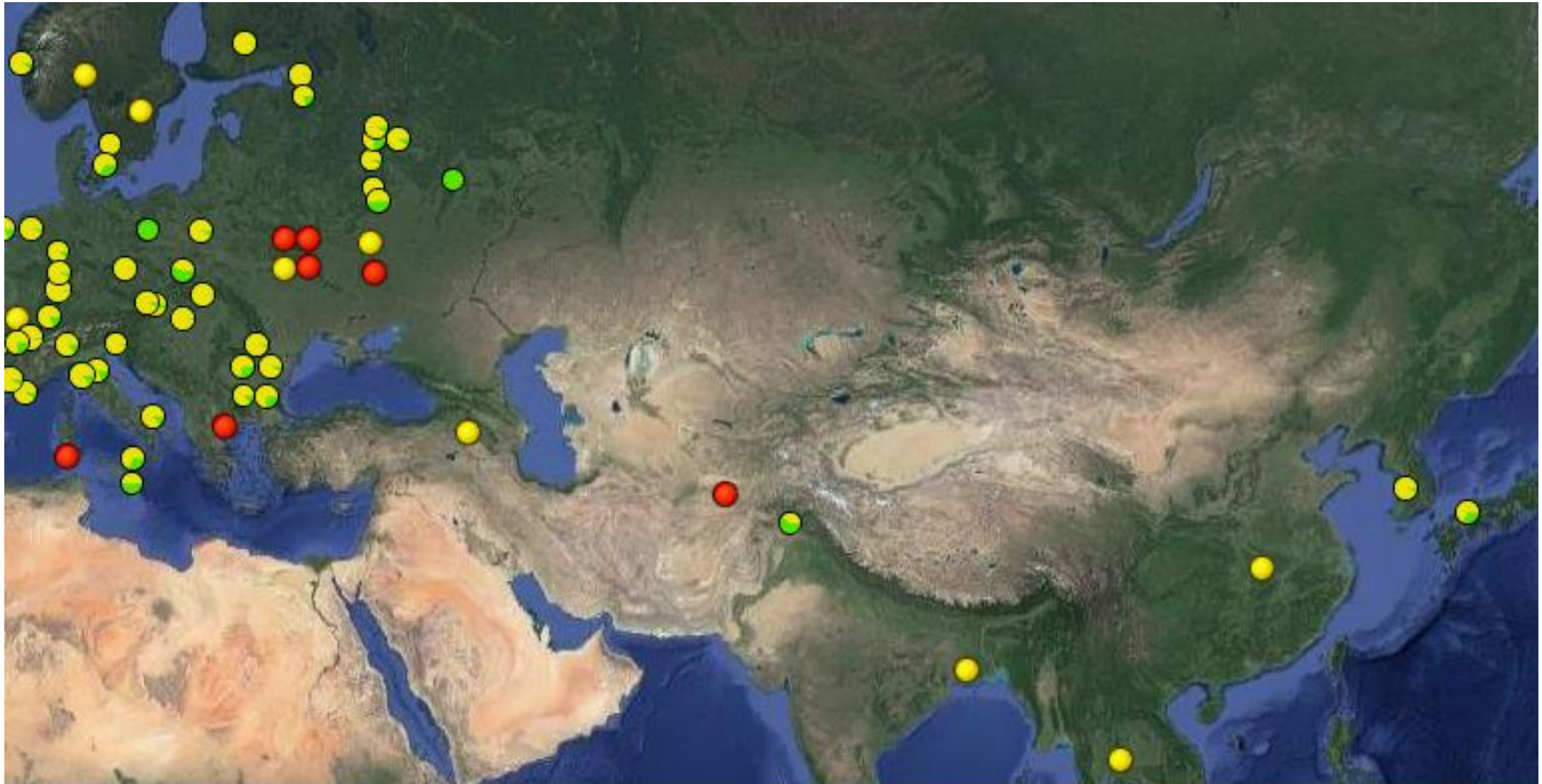
Outline

- Brief Overview of COMSATS Institute of Information Technology
- ALICE COMSATS Collaboration
- COMSATS Site Evolution
- COMSATS Site – Current Status
- COMSATS New Site Outlook
- Future Site Status
- Summary and Conclusion

Brief Overview of COMSATS

- 8 Campuses
- 8 Research Centers
- 37k+ Students and 3k+ Faculty
- Ranked No. 1 IT Institute of Pakistan





Eighth Annual ALICE Tier-1/2 Workshop [April 17 - April 19, 2018], University of Derby, UK

ALICE-COMSATS Collaboration

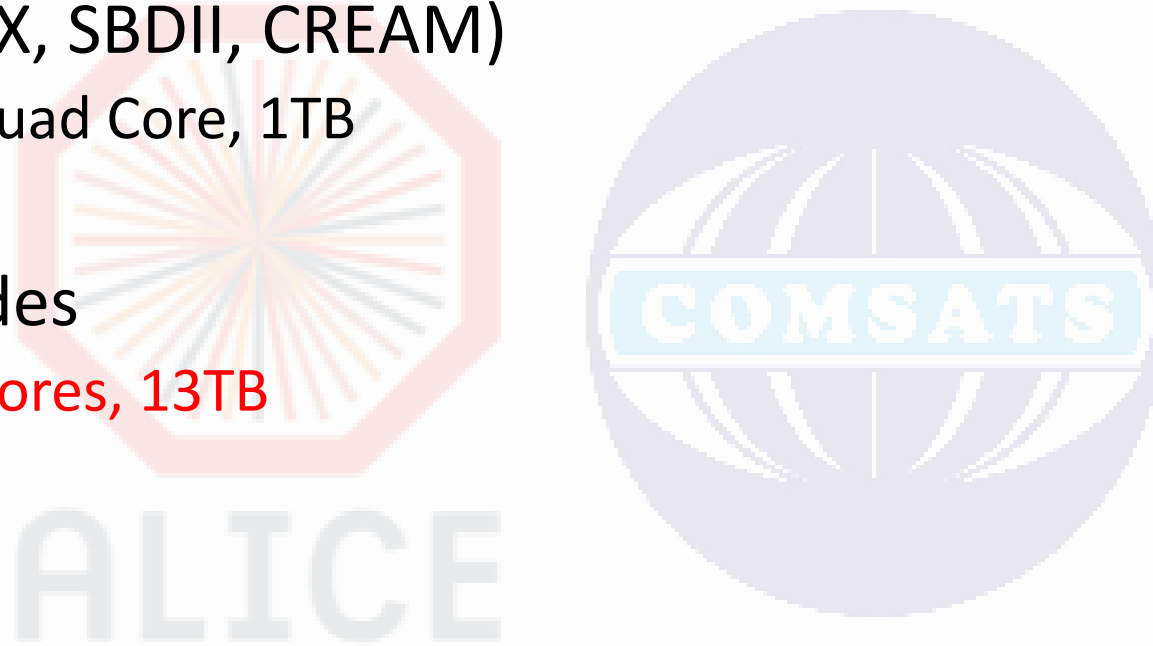
- ALICE-COMSATS Collaboration started in 2009
- Association revolves around two fields:
 - Study of the production of heavy flavor particles
 - Grid Computing
- Pakistan became Associate Member of CERN on July 31st, 2015
- Our aim was to acquire Tier-2 recognition by having reasonable hardware and bandwidth.

COMSATS Site Evolution

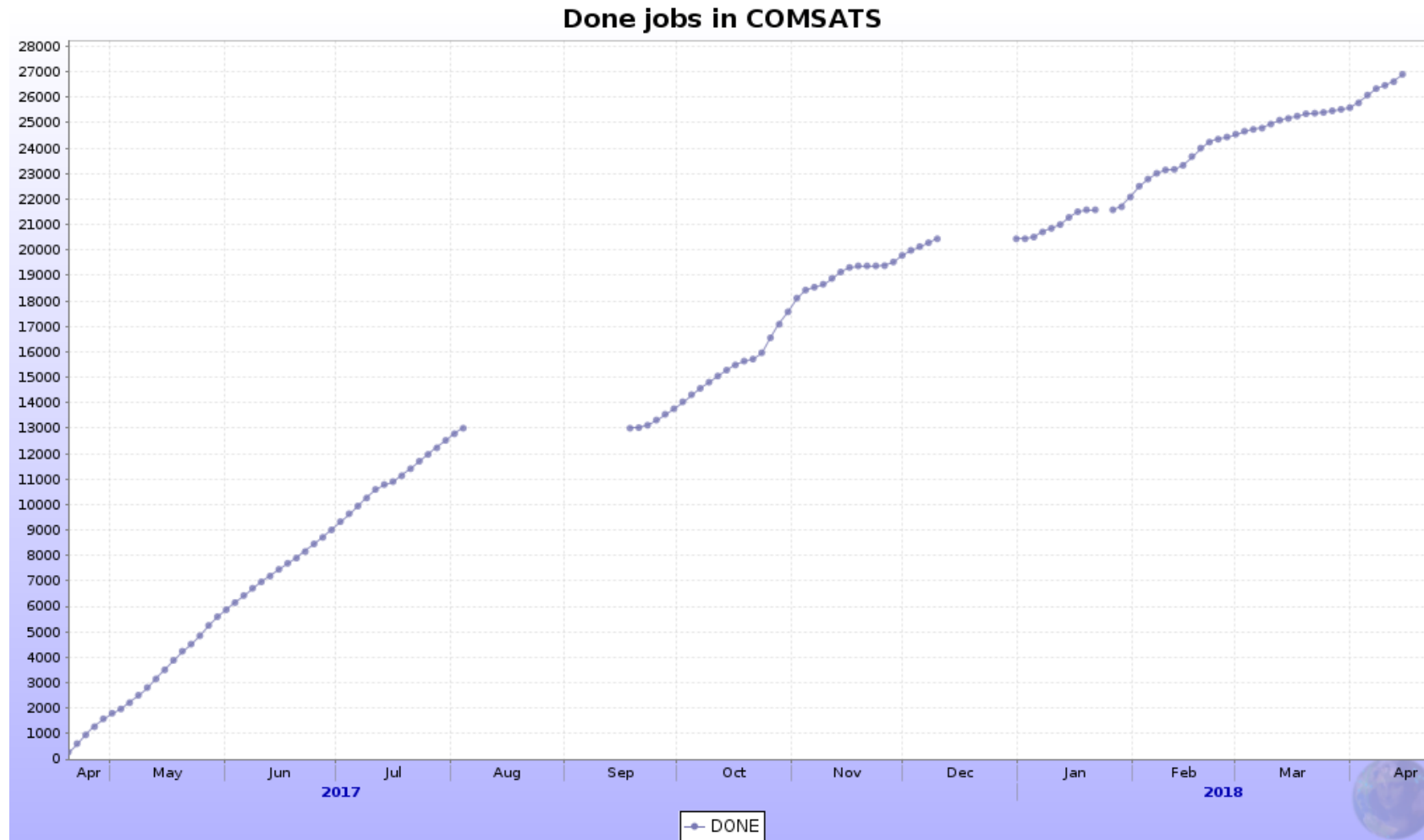
- Desktop Computer as a VOBOX (2009)
- Dell Server as VOBOX (2010)
- Procurement of HPC equipment (2011)
- Cluster Building, Successful ALICE Grid Configuration (2012)
- Memory Upgradation (2013)
- Bandwidth Upgradation from 24Mbps to 48Mbps and 2 Servers were added in the existing Grid (2014)
- Six Servers were added in existing Grid (2015)
- Development of Data Center Planned (2016)
- Data Center Up and Running, Bandwidth Upgradation 72Mbps (2017-18)

COMSATS Site – Current Status

- Servers (VOBOX, SBDII, CREAM)
 - 16GB, Dual Quad Core, 1TB
 - SL6, EMI3
- 13 Worker Nodes
 - 546GB, 208 Cores, 13TB
- Bandwidth
 - 150Mbps



Done Jobs in COMSATS



COMSATS New Site Outlook

- 128 Worker Nodes to be added.
 - 2048GB, 2048 Cores
- 500 Mbps dedicated bandwidth.
- OS Installation: Completed
- WN Configuration: Almost Completed.



Future Site Status: Tier-2 Data Center

- Memory/RAM: 3TB
- Storage Element: 380TB
- Network Bandwidth: 500Mbps/1Gbps
- IPv6 is configured successfully.
- COMSATS is connected via PERN to outside world.

ALICE



Summary and Conclusion

- A significant change is coming.
- Trying hard to ensure availability and reliability.



