

# Closing Remarks

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# Oakforest-PACS (OFP) [2016.12~]

- Operated by JCAHPC (Joint Center of U Tsukuba and U Tokyo)
- Compute nodes
  - 25 PFLOPS (Xeon Phi KNL)
  - 8,208 nodes (1,026 chassis)
  - 897 TiByte memory
  - 100 Gbps Omni-Path, full bisection bandwidth
- File system (Lustre File System)
  - 26 PByte
  - 500 GByte/sec
  - 4 MDS x 3 sets, 10 SFA14KE
- File system cache (Burst Buffer)
  - 940 TByte
  - 1.56 TByte/sec
  - 25 IME14K



# File System for OFP

- Lustre File System
  - 26 PByte
  - 500 GByte/sec



- 3 set of 4 MDS
- 10 SFA14KE



# File System Cache

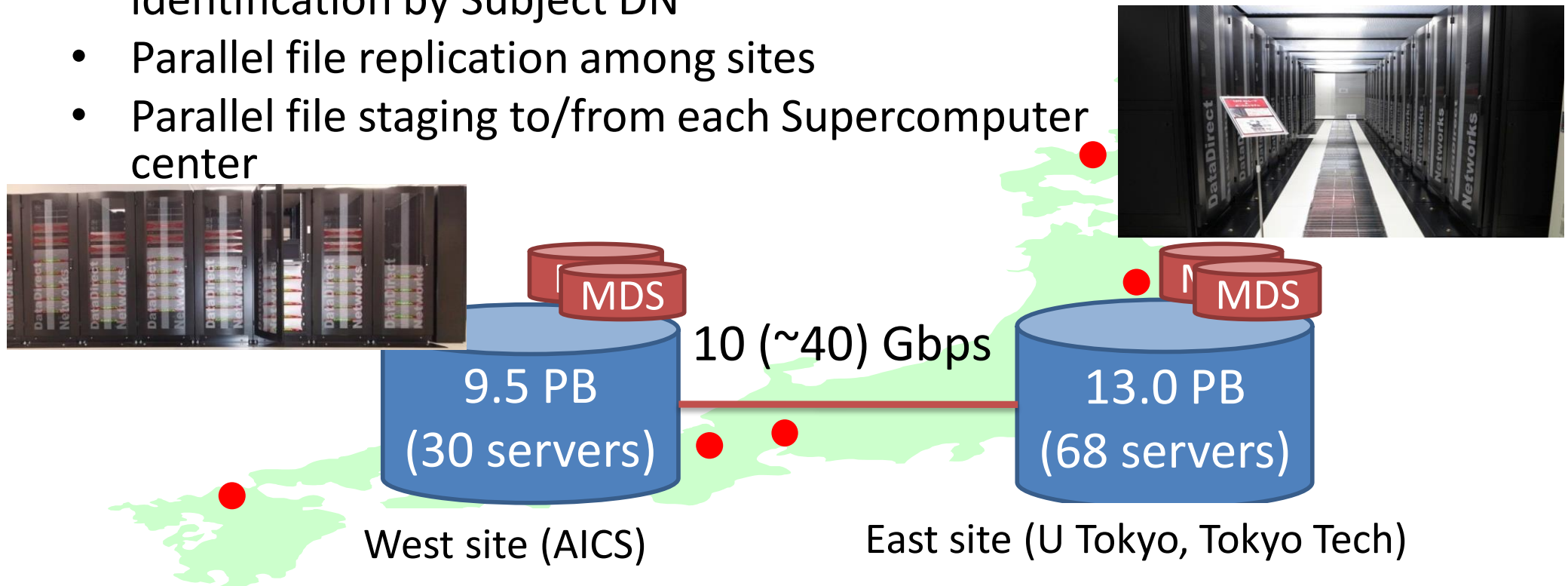
- Burst Buffer (IME)
  - 940 TByte
  - 1.56 TByte/sec
  - 25 IME14K



# HPCI Storage

Plan to upgrade  
in 2017

- HPCI – High Performance Computing Infrastructure
  - RIKEN AICS (“K”), NII, Hokkaido, Tohoku, Tsukuba, Tokyo, Titech, Nagoya, Kyoto, Osaka, Kyushu, JAMSTEC, ISM, AIST
- A 20PB single distributed file system consisting East and West sites
- Single Sign-on by Grid Security Infrastructure (GSI) and user identification by Subject DN
- Parallel file replication among sites
- Parallel file staging to/from each Supercomputer center



Picture courtesy by Hiroshi Harada (U Tokyo)

# SNIA-J Extreme Storage Society of Science Study

- Established in May, 2016
- Discuss about next-generation high-performance storage (extreme storage) beyond HPC, Big Data, and Cloud technologies
- Monthly meeting
- Chair: Osamu Tatebe (University of Tsukuba)
- Members: Fujitsu, Hitachi, NEC, Toshiba, HGST Japan, TÜV Rheinland Japan, CTCSP, SCSK, DDN, EMC, KEL, TIS Solution Link, ...