EREBOS
the
Collaborative Research Environment
for
CLUES

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Collaborative Research Environment (CRE)

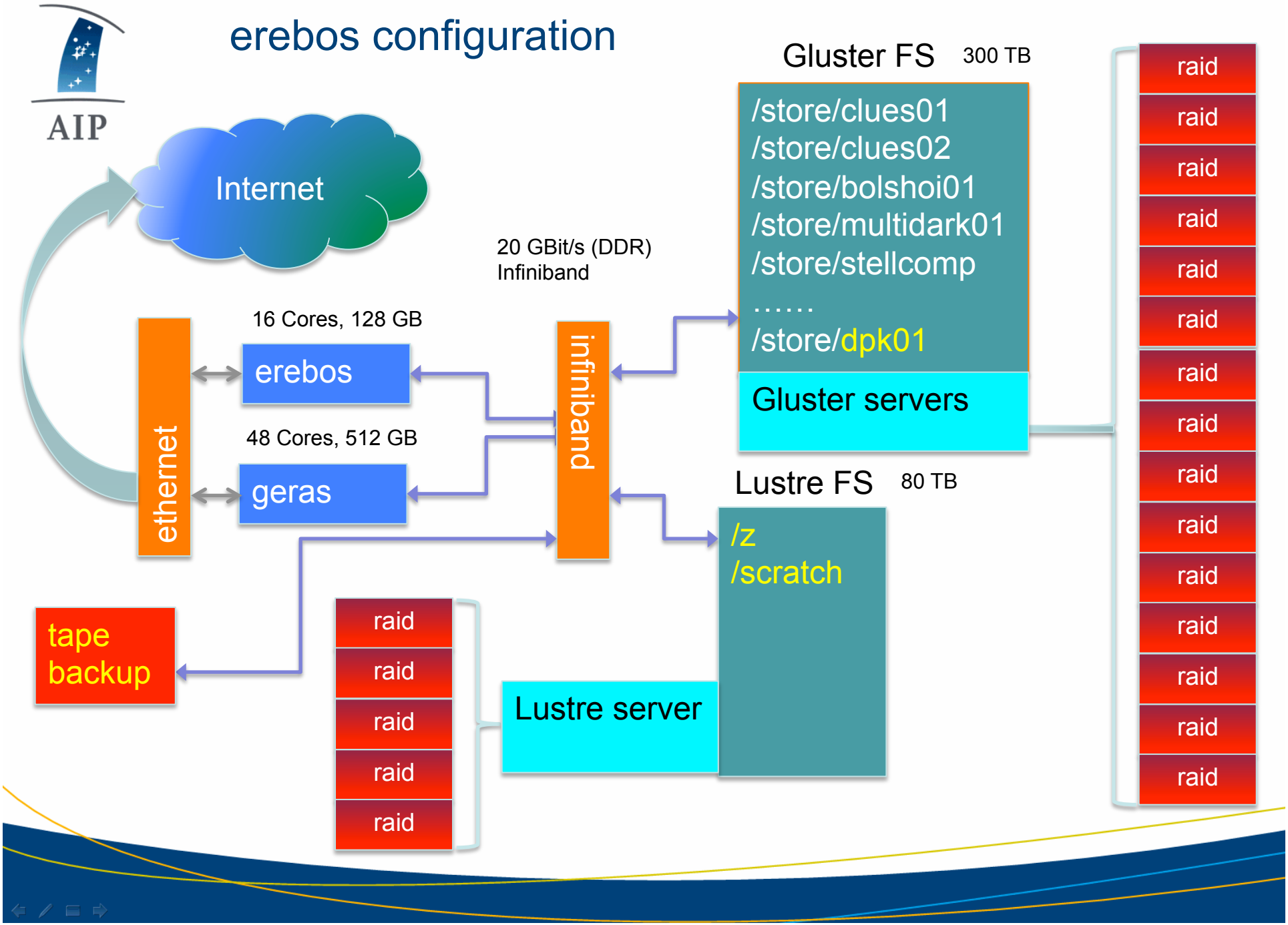
Elements:

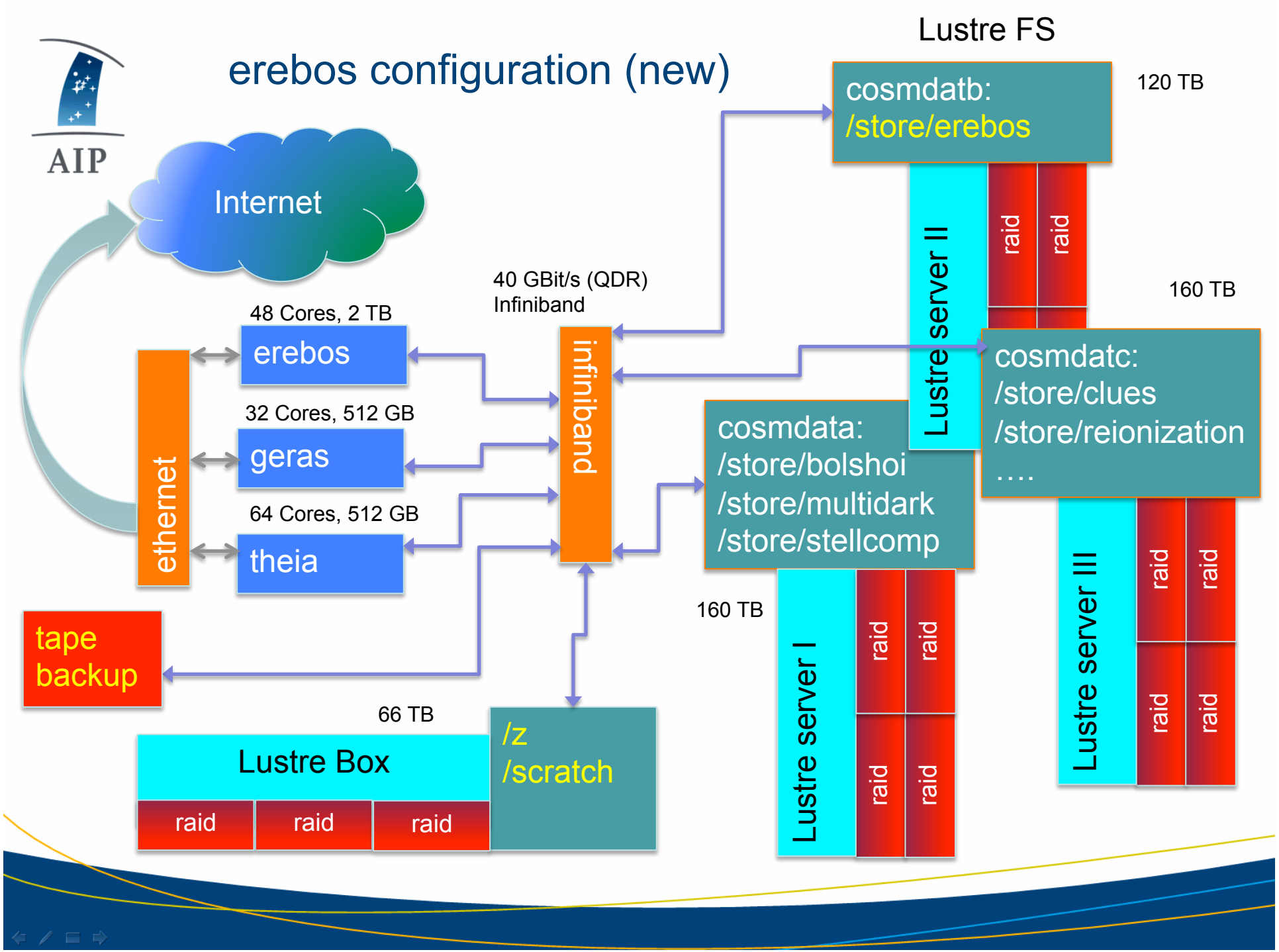
- huge data space
  - for raw data
  - for post processing product data
- post processing tools
  - scientific programs, compiler, libs, viewers…
- management procedures for a cross border collaboration
  - user accounts etc. managed by collaboration,
  - membership not bound by relation to institute or university
  - mailing list
- accessible, secure machines
- project webspace for collaboration results

erebos CRE

CLUES website:	www.clues-project.org	
User management:	www.clues-project.org/management/	
Membership:	by CLUES manager	
Mailing List:	erebos-user@aip.de	
Machines:	erebos, geras raids + servers	{work space} {data space }
Access:	via ssh/scp from anywhere	on port 2222

erebos configuration




AIP
erebos configuration (new)
Lustre FS
Internet
cosmdatb:
/store/erebos
120 TB
Lustre server II
raid
raid
raid
raid
160 TB
40 GBit/s (QDR)
Infiniband
48 Cores, 2 TB
erebos
infiniband
cosmdatc:
/store/clues
/store/reionization
….
32 Cores, 512 GB
geras
ethernet
cosmdata:
/store/bolshoi
/store/multidark
/store/stellcomp
64 Cores, 512 GB
theia
160 TB
Lustre server I
raid
raid
raid
raid
Lustre server III
raid
raid
raid
raid
tape
backup
66 TB
Lustre Box
raid
raid
raid
/z
/scratch

erebos configuration

Old:

OS: Scientific Linux 6.{3,4}

Env: /opt/env/*
idl8.1,gcc- 4.4.7,
intel-13.01
mpich2+3,
openmpi1.6.5{intel},
python 2.6.6
….

Group: dpk

New:

OS: CentOS 6.5

Env: modules
idl-8.1, gcc-4.4.7,
intel-14.02,
mpich3,
openmpi{intel,gcc}
python 2.6.6/2.7.5
…..

Group: erebos

erebos configuration

Old:

Filesys: Lustre 2.4.2
gluster 3.3.1
{xfs + ext4}
~ 400 TB

Quota: no quota on
any volume

CPU usage: 12/32 cores max

New:

Filesys: Lustre 2.5.2
{ext4}

~ 560 TB

Quota: no quota on
/store/*
/scratch/*
quota on [300GB]
/z {$HOME}

quota required for more frequent backup of {$HOME}

CPU usage: 32/32/48 cores max

erebos questions / discussion

Access:	via ssh/scp on port 2222 from anywhere {rwx}
	http/wget for access to raw data with basic http security
Applications:	gadgetviewer, python imaging (2.7)
Libraries:	gsl, fftw2, fftw3, hdf5
	{cfitsio etc. by default}

1st week in September: switch to new machines,
3+4 Sep. downtime