Oasis clean up

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Two options for making content available to worker nodes via oasis exist. The oasis service provides a mechanism to share a repository (oasis.opensciencegrid.org) and distributes other repositories, nova.opensciencegrid.org, for example. Using both mechanisms is wasteful of resources, creates unnecessary login access to a GOC machine and creates confusion as to the definitive source for content. Using both mechanisms is an artifiact of the evolution of the system and is contradictory to approved policy.

Summarized below is the current state and progress toward implementation of policy.

Adding content to oasis proceeds as follows:

- An oasis manager adds content to an area accessible from oasis-login.opensciencegrid.org, specifically a directory called, for example, "ouser.nova". There is one such directory per VO. The total size of this content is given in row 5 ("oasis login") of table 1.
- An update is initiated by the manager via the "osg-oasis-update" command.
- Content from ouser.*VOname* is rsync-ed to the statum 0 (S0) server source area.
  - Source level content is stored twice.
- The S0 compresses and catalogs the newly added files. The first row of table 1 gives the size of this content. It is not possible to differentiate this by VO, storage at this level is machine accessible only.
- The compressed content is replicated to the GOC stratum 1 server. From there it is replicated to the BNL and FNAL replica. The storage used on the far replica is not considered here but reduction at the GOC S1 also reduces use there.
  - Compressed content is stored twice at the GOC.
- VOs with an external repository update their content via whatever mechanisms they find appropriate. These are, effectively, additional S0 servers. Content on these servers is not considered directly here but it is replicated on the GOC S1 and summarized in row 3 ("all external") of table 1.

Table 1 summarizes disk use and gives a before/after estimate of use with NOνA transitioned to external use only. Other VOs are also being transitioned.

Table 2 is a summary of users without content. The VO lz is brand new, the others look like they requested access but never used it. These users will simply be removed shortly.

Table 3 are VOs using oasis as originally designed. Internal use via oasis-login, no external repositories.

Table 4 are VOs that have only external repositories and no internal use.

Table 5 lists the problem children. They are in various states of agreement to the transition to the one or the other state.

Table 6 gives a list of CPU use for the VOs considered here, total use over a recent 10 week period. A useful measure of activity, in particular, IceCube has no use in this sampling.

Component	Use, GB	No NOνA
oasis, S0	833	380
oasis, S1	833	380
all external	1124	1124
oasis login	1572	717
total	4362	2601

Table 1: A summary of disk use.

VO	login, GB	S0, source	External, GB	Managers
atlas[a]	0	0	0	2
geant4[b]	0	0	DNE	0
hcc[c]	0	0	DNE	2
lariat	0	0	0	0
lz	0	0	0	0
minos	0	0	0	0

Table 2: Currently enabled VOs with no internal use and no use of an external repository. geant4 and hcc are candidates for immediate removal.

[a] testing for Caballero and Dykstra
[b] The single manager was removed 2/Jul
[c] Managers; Derek, Brian

VO	login, GB	S0, source	External, GB	Managers
osg	245	249	DNE	10
belle	143	141	DNE	3
gm2	88	84	DNE	2
glow	28	28	DNE	3
lbne	23	23	DNE	8
csiu	21	21	DNE	2
gluex	20	20	DNE	1
ligo	12	12	DNE	4
enmr	6.1	5.9	DNE	1
sbgrid	6.1	5.9	DNE	1
uc3	3.9	3.4	DNE	1
snoplus	3.3	3.2	DNE	2
mis	0.09	14	DNE	9

Table 3: Oasis VOs without an external repository.

VO	login, GB	S0, source	External, GB	Managers
mu2e	0	DNE	23	1
darkside	0	DNE	8.4	1
seaquest	0	DNE	7.1	0
auger	0	0	5.6	1
des	0	DNE	2.2	0

Table 4: VOs using only an external repository. All managers are candidates for immediate removal.

VO	login GB	S0 source GB	External GB	Managers	Access Removed	Content Removed	JIRA
μBoone[a]	16	16	4	0	2/Jun	28/Jul	OO-75
NOνA[b]	546	537	855	6	16/Jul	11/Aug	OO-76
fermilab[c]	297	306	141	5	16/Jul	11/Aug	OO-77
icecube[d]	82	91	45	0	7/Jul	14/Jul	OO-78
glast	11	11	36	1			
lsst	2.1	2.1	1.2	2			

Table 5: VOs with internal use and an external repository.

[a] https://ticket.grid.iu.edu/25919
[b] email "Oasis Use", 2/Jul
[c] email "Oasis use, fermilab repository", 2/Jul, ff.
[d] Contacted 6/Jul, email "Oasis interactive use". Approved for removal

mu2e	10,574,997
NOνA	6,361,120
lbne	2,011,826
minos	1,870,703
cdf	1,168,542
lar1nd	690,179
μBoone	441,296
sbgrid	274,803
fermilab	139,255
darkside	71,503
des	31,581
gm2	18,602

Table 6: CPU use, hours. 10 week sample