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# CE-Storage, etc

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OSG Meeting

UFL

Jan 24

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# LocalStorageRequirements

- Current documents:

- Definitions

- <http://osg.ivdgl.org/twiki/bin/view/Integration/LocalStorageRequirements>

- How sysadmins can configure sites correctly (instructions and examples)

- <http://osg.ivdgl.org/twiki/bin/view/Integration/LocalStorageConfiguration>

- How users can use the information about CEStorage (instr. and examples)

- <http://osg.ivdgl.org/twiki/bin/view/Integration/LocalStorageUse>

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# CEStorage

- These are disk spaces (except DEFAULT\_SE?) available in a CE of OSG and used for temporary or transient storage necessary in order to run applications
  - Not all CEStorages are required in OSG 0.4
  - Information available as environment (\$OSG\_name variables for fork and queue jobs) and through GRIS/BDII (GIP published GLUE attributes)
  - When the CEStorage is defined (value different from 'UNAVAILABLE') the disk space has to be provided and satisfy its characteristics
  - Check LocalStorageRequirements for a list and definition of each CEStorage
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# Compared to other definitions

CE Storage	CN	GLUE Schema	Grid3 Sch.	OSG Storage
GRID	\$GRID3	Location.Path (*2)	Gri3Dir	\$GRID
APP	\$APP	CE.Info.ApplicationDir (CE.Info.ApplicationDir) (*1)	Gri3AppDir	\$APP
DATA	\$DATA	CE.Info.DataDir (CE.VOView.DataDir) (*1)	Gri3DataDir	
SITE_WRITE		Location.Path (*2)		\$SITE_WRITE
SITE_READ		Location.Path (*2)		\$SITE_READ
-na-	\$TMP	CE.Cluster.TmpDir (CE.SubCluster.TmpDir)	Grid3TmpDir	\$TMP
WNTMP	\$WNTMP	CE.Cluster.WNTmpDir (CE.SubCluster.WNTmpDir)		
DEFAULT_SE		CE.Info.DefaultSE (CE.VOView.DefaultSE)		

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# Changes (from Grid3 or OSG 0.2) and gotchas

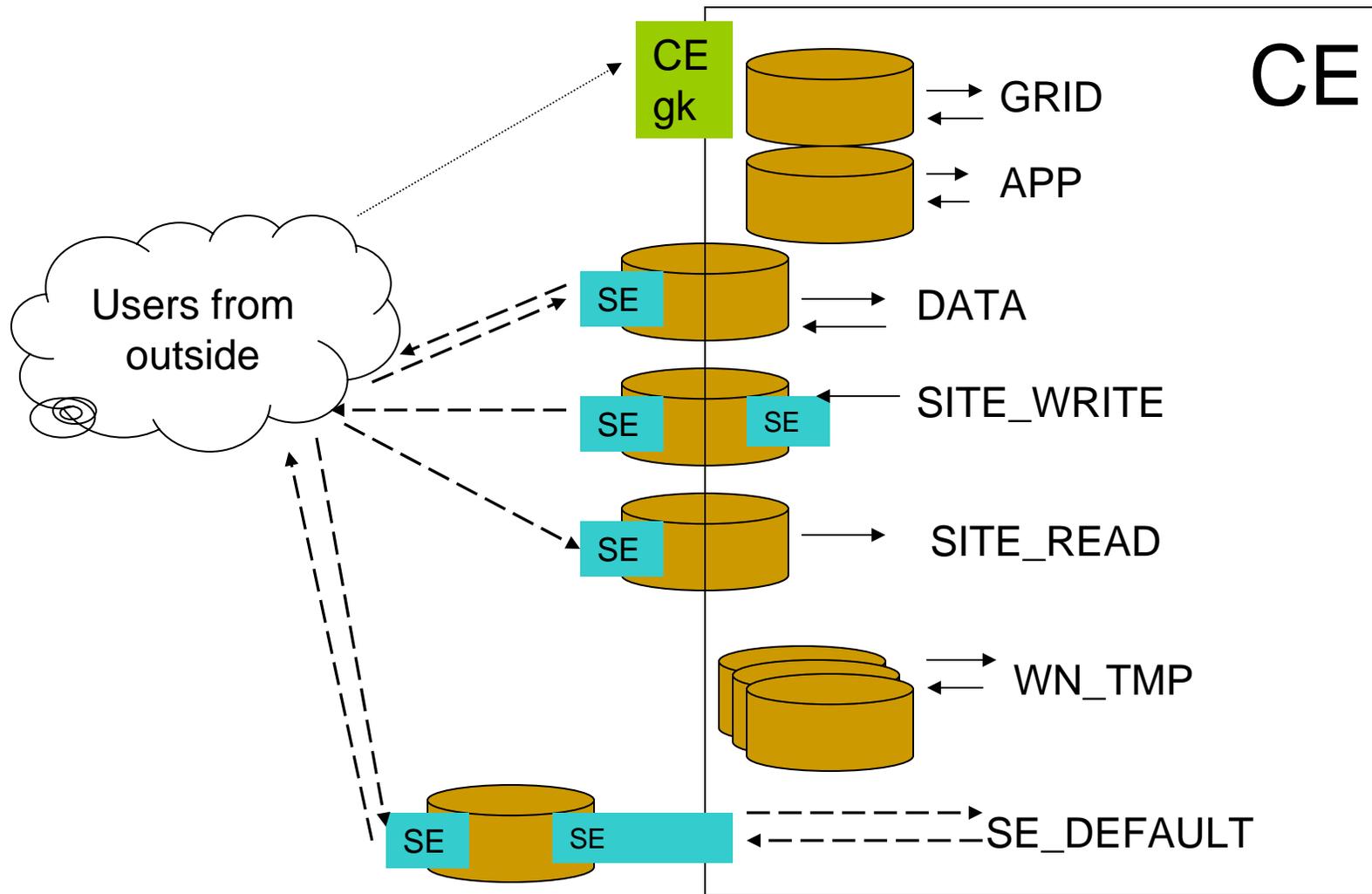
- The list is longer (compared to the Grid3 or OSG 0.2 one), there are more alternatives
  - Not all CESTorages are mandatory
  - DEFAULT\_SE is a SE, identified with all necessary information (e.g. the base URL of a gridftp server), not a disk path
  - Depending on the configuration there may be no directory shared among worker nodes and with the headnodes (gatekeeper, gridftp/data server)
  - Access privileges may be different for different CESTorages (if roles within the VO users are deployed)
  - The space where exist the system installation of OSG stack (OSG\_LOCATION) is not available (generally). There is a separate OSG\_GRID with client sw installation
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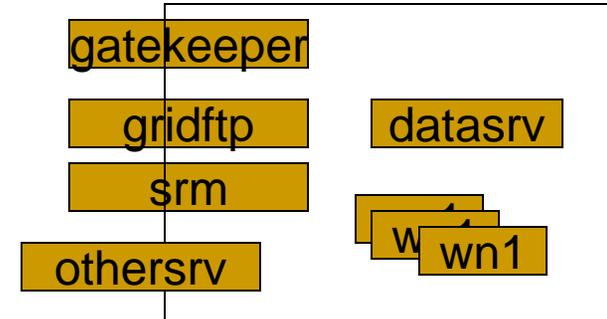
# Open issues and questions

- Is this model fitting with user requirements and current/future technology?
  - The information provided at the outside has to be tested and documented
  - Relationships with SE characteristic and information have to be added
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# Relationship with SE (outside access)



# Example



- Site

- Gatekeeper (Globus 2.4): gatekeeper.mysite
- Data server (gridftp): gridftp.mysite
- SRM server: srm.mysite
- Multiple workernodes with queues accessible from the gatekeeper

- There may be a firewall

- There are these mountpoints:

- /hwv – visible from headnodes and workernodes (shared)
- /loc – local to the host
- /HNAMEaHNAME – visible from HNAME nodes

# Example (2)

- Configuration (configure-osg.sh):
  - ❑ GRID = /hwv/grid
  - ❑ APP = /hwv/app
  - ❑ DATA = /hwv/data
  - ❑ SITE\_WRITE = srm://srm.mysite/frominside/
  - ❑ SITE\_READ = /dcapfs/...
  - ❑ WNTMP = /loc/scratch
  - ❑ DEFAULT\_SE = gsiftp://otherhost.mysite/path
- SE existing (GLUE SE)
  - ❑ DATA SE = gsiftp://gridftp.mysite/path\_from\_server/
  - ❑ SRMin = srm://srm.mysite/inpath
  - ❑ SRMout = srm://srm.mysite/outpath
  - ❑ Other: gsiftp://otherhost.mysite/path
- CE-SE binding (GLUE CE-SE binding)
  - ❑ OSG\_DATA - gsiftp://gridftp.mysite/path\_from\_server/
  - ❑ OSG\_SITE\_READ - srm://srm.mysite/inpath
  - ❑ OSG\_SITE\_WRITE - srm://srm.mysite/outpath

