

Integration of an AFS-based Sun Grid Engine site in a LCG grid

Objective:

Integration of existing Linux Cluster with

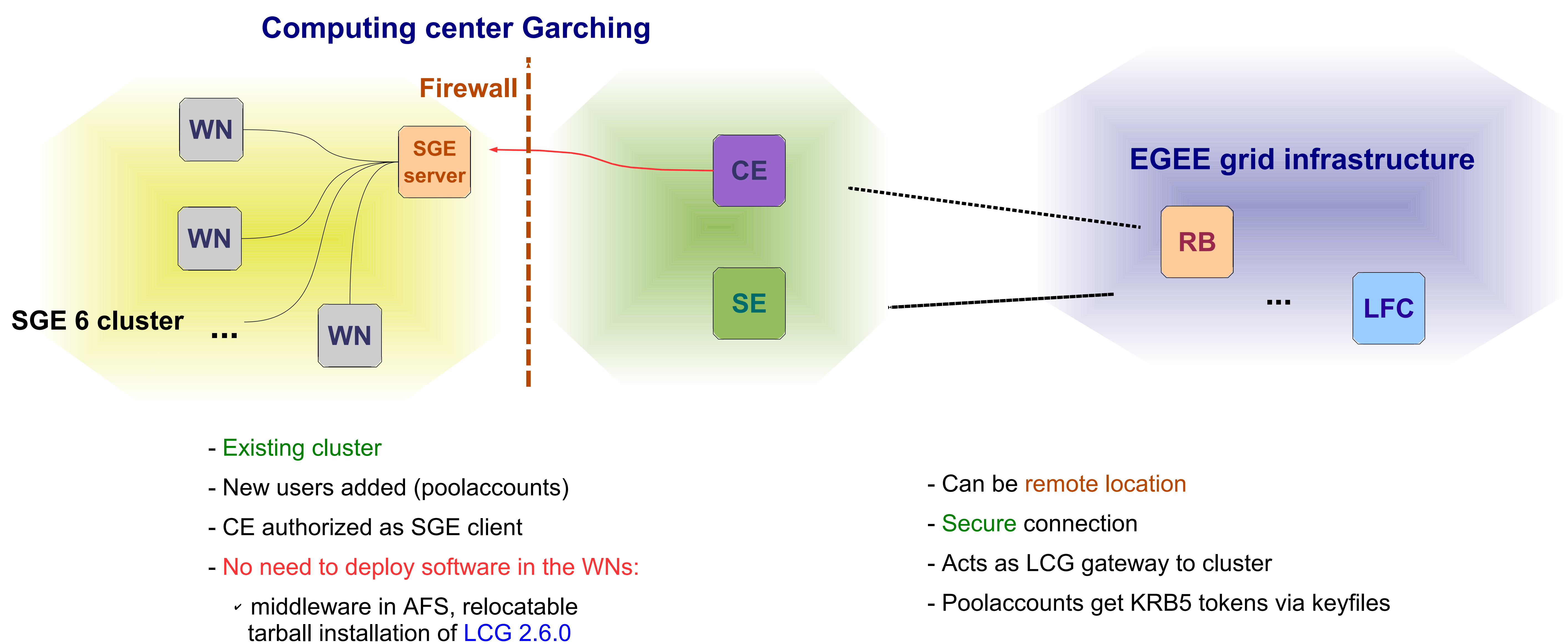
- SUSE Linux
- Sun Grid Engine batch system
- AFS File System
- operated by a Computing Center in the EGEE/LCG infrastructure

Problems:

- LCG supports only Torque/PBS, LSF, Condor
- The computing center does not change its standard tools
- Integration of two security frameworks
 - GSI
 - Kerberos

Approach:

- use Globus2 SGE-jobmanager & infoprovider developed by The London e-Science Centre*
- adapt it for AFS and LCG-2.6



Extra fixes:

- JobManager needs "use filetest 'access';" (Globus does not know about ACLs)
- Fix for job_script_name in SGE jobmanager
- Force bash usage in SGE wrapper scripts, source grid_env.sh
- Fix quoting in globus-job-manager.conf

Conclusions:

- restriction to SciLinux prevents LCG dissemination
- presented approach circumvents this obstacle
- SGE-AFS clusters can be integrated within the LCG Grid

* <http://www.lesc.ic.ac.uk/projects/SGE-LCG.html>