HTCondor's Central Manager is no different than a regular HTCondor cluster. We installed installed SCHEDD on the HTCondor-CE machine instead of Central Manager as shown in the figure above.

HTCondor-CE package was not included in the UMD repository. Therefore, it was necessary to download the package of HTCondor-CE from the koji-hub homepage that manages the OSG middleware packages. We modified that package to operate in the UMD middleware environment.

The HTCondor-CE was rebuilt using “RPM rebuild” to install on UMD middleware. The grid-certificates and blahp packages needed some modifications in the rebuild process.

After completing the above procedure, We manually set the parameters which were provided by CERN as Puppet scripts. eg) Argus configuration, local environment, osg-configure, etc., and so on.

The APEL system for publishing user information does not support HTCondor-CE now. We uploaded the patches for the APEL package as the pull-request on the GitHub homepage. (Pull-Request#150 on APEL GitHub homepage)

We used the HTCondor's Grid universe to test the setup of HTCondor-CE. When the task is submitted, communication is done between the Central Manager and the HTCondor-CE machine in relation to the task. The condor_ce_q and condor_q commands can be used to verify the system operation.

After this test, we registered our site to GOCDB and received HTCondor-CE jobs.

Recent, the SAM test has been successfully completed and will be registered as T2_KR_KISTI in the new CMS Tier-2 Center.

Conclusion

HTCondor-CE can be used on the production site in UMD middleware as Computing Element (CE).

To publish account information for HTCondor-CE, you need a patch for HTCondor-CE support that we created.

Reference

- Andrew Lahiff. (2014). “HTCondor at the RAL Tier1”. HTCondor Week 2014

Link

- HTCondor-CE Support's pull request https://github.com/apel/apel/pull/150