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PandaOnTier3

Introduction

This page outlines the steps necessary to make a Computing Element (CE, a cluster, e.g. a Tier3 site) available for PanDA production. These are the minimal requirements, they do not include a local installation of DQ2 Site Services, since those can be provided by the corresponding Tier2 site. If you intend to also install DQ2 Site Services, your site will be equivalent to a Tier2 and you can look at Tier2 documentation.

Your CE will have to meet these requirements and install some software (OSG and ATLAS) to run PanDA jobs.

[Here](#) is a glossary with terms you may encounter in these pages.

Requirements

Once you have your cluster ready, you can consider making your CPUs available for PanDA production if:

- Your OS (on the worker nodes, not on the head nodes) is supported by ATLAS (e.g. Scientific Linux - SLC3 or SLC4). ATLAS software is validated only on a few OSes.

Grid (OSG Installation)

You need a head node (machine with public network address) as Grid Gatekeeper, and install the OSG software stack, currently 0.6. You will install an OSG site, probably as member of the ATLAS VO.

You can find more details about OSG here:

- [Getting started](#)
- [CE \(Server\) installation - one example](#)
- [CE Install Guide](#)
- [CE Firewall Info](#)

ATLAS PanDA

As a result of the OSG installation you'll define and publish some information.

To be used by PanDA, these have to be communicated to PanDA (e.g. to the people on shift) so that your CE is added to the list of valid CEs (added to `siteinfo.py`).

Specifically, you need to provide:

SiteName, gatekeeper hostname, batch queue type (queue to use for PanDA jobs), `OSG_APP_DIR`, `OSG_DATA_DIR`, `OSG_WN_TMP_DIR`, special parameters to use for Globus submission (if any, e.g. a queue name different from the default one), path to python \geq 2.3 (if the default is a lower version), `OSG_GRID_DIR`

You will have to get in touch with a ATLAS Tier2 to be able to use their DQ2 Site Services and provide:

- `DQ2URL`: URL of the LRC you'll be using
- `copytools`: the client tool (e.g. `uberftp`) used to transfer input files from the SE at the Tier2 and how to set it up (if it is not already available)

This information will be used to add the CE in `siteinfo.py` and the latter one (`copytool`) also to add an entry in `storage_access_info.py`. A PanDA developer will be able to do that.

PanDA developers will have to:

- update `siteinfo.py` and `storage_access_info.py` on the pilot submit host
- update `siteinfo.py` on the Panda central server (Taskbuffer) and on the monitoring server

Xin or the new panda pilots will install the required ATLAS releases, as well as UberFTP, into `OSG_APP_DIR`.

Now your CE is ready to receive PanDA pilots and run production or analysis jobs through PanDA.

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-- MarcoMambelli - 29 Jun 2007

Responsible: MarcoMambelli

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