Introduction to HTCondor

How to distribute your compute tasks and get results with high performance, keeping machines and site admins joyful

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Overview

1. HTCondor

HTCondor

- Workload Management system for dedicated resources, idle desktops, cloud resources, . . .
- Project exists since 1988 (named Condor until 2012)
- Open Source, developed at UW-Madison, Center for High Throughput Computing
- Key concepts:
    - '**Submit Locally. Run globally.**' (Miron Livny)
      Single interface to any available resource.
    - '**Class Ads**', for submitters, jobs, resources, daemons, . . .
      Extensible lists of attributes (expressions) — more later!
    - Supports Linux, Windows and MacOS X and has a very diverse user base
      CERN community, Dreamworks and Disney, NASA,. . .

What is a workload manager?

FIXME: Image user has jobs, resources, want to run

Why HTCondor?

FIXME: explain HTC, Slurm

Structure of HTCondor

FIXME: Daemon image

HTCondor's ClassAds

FIXME: explain HTC, Slurm

What HTCondor needs from you. . .

FIXME: explain JDL

What HTCondor needs from you. . .

FIXME: explain Job wrapper

A first job

FIXME

Thank you

for your attention!

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