Contribution ID: **61**   Type: **not specified**

Workshop: ARC installation and configuration Part II

Wednesday, 29 May 2024 15:00 (2 hours)

The workshop runs from 13:00 to 16:00 with a 30 minute break in the middle

The ARC Compute Element (CE) is a distributed compute front-end on top of a conventional computing resource (e.g. a Linux cluster or a standalone workstation). It enables remote batch system job submission, and seamlessly handles data staging of any remote input files. ARC-CE's can work in a grid of compute resources, removing the need for the end-user to specify what resource they want their job to run on. Direct submission to a specific HPC resource is also possible.

ARC has been one of several recommended compute element technologies of the World Wide LHC Computing grid since 2002, and is now one of the two recommended ones together with HT-Condor CE.

The tutorial demonstrates the installation and configuration of an ARC-CE front-end for use in a distributed grid infrastructure, such as WLCG. We will show that ARC supports both high-performance systems, like Vega EuroHPC, Nordic WLCG Tier1 and other HPC centres, but also smaller community grids and cloud HPC resources. The tutorial addresses primarily system administrators, but also serves as a demonstrator of a seamless access to HPC resources to extended user communities, such as Life Sciences, Climate and Biodiversity, Astrophysics, Materials science and others.
The tutorial will demonstrate the installation of ARC 7, and focusing on an ARC-CE set up for token support.

A handful of test-clusters will be set up to allow attendees to type along.

If time allows, two more items will be discussed:

a). A demonstration of the new ARC cluster setup in the EGI Infrastructure Manager. The EGI IM ARC integration allows admins to set up a compute cluster running Slurm and ARC with a few clicks.

b). With ARCHERY we will show how a research community using a set of ARC-enabled resources (HPC/grid/cloud) to run computations can set up their own community grid without needing a central job-server. This allows the researcher to submit jobs to all their available ARC CEs, without the need to choose and specify particular CE for each job.

Presenter: PEDERSEN, Maiken

Session Classification: Afternoon Workshops Part II