EarthConsole™ P-PRO – Parallel Processing Service

P-PRO is the hosted cloud-based parallel processing service of the EarthConsole™ enabling users to request a parallel processing campaign to run on available processors/algorithms, scaling up the area of interest and/or time window.

Advantages at a glance:

- **FAST EARTH OBSERVATION DATA ACCESS**
  P-PRO resources are deployed on the DIAS infrastructure providing access to the available EO data catalogue locally avoiding the time consuming remote download of the data.

- **FAST DATA PROCESSING**
  With P-PRO users can receive processing results in a considerably reduced time. P-PRO relies on a Parallelizer Engine, to partition the application input data and operations into smaller tasks and to distribute them over a set of computing nodes where they will be executed in parallel. Once all the tasks have been completed, the orchestrator gathers the results of the parallel computation and makes them available to the user.

- **RESOURCES OPTIMIZATION**
  P-PRO only uses the necessary resources when it needs them. The cluster resources are managed by a Cloud Scaling Engine capable of automatically adapting the amount of computing resources based on the workload of the cluster. In this way the platform ensures that the parallelization effort is always matched with an adequate amount of computing power.

- **MIGRATION FLEXIBILITY**
  P-PRO allows for a smooth migration of any processor from other platforms such as the ESA Grid Processing on Demand (G-POD). If the processor is not yet integrated, users might invoke first the EarthConsole™ I-APP (Application Integration) service for making it available in P-PRO.

- **IMPROVED MONITORING**
  To support the platform operations, P-PRO is equipped with a web-dashboard for the submission of processing sessions and for the monitoring of the sessions progress, resources usage and system status. In this way, EarthConsole™ operators can monitor users' processing status and resources employed at any time.

- **INTEGRATED SERVICE**
  P-PRO complements the functionalities offered to EO data users via the G-BOX (Integrated Development and Execution Environment). P-PRO can be configured in chain with the GBOX where the results might be accessible for post-analysis and visualization.

Users can submit a sponsorship request for this service via the NoR portal.

info@earthconsole.eu
support@earthconsole.eu

Via Enrico Fermi, 62
00044 Frascati – Rome, Italy

www.earthconsole.eu
Tel. +39 069424783