

## JUNIPER

The modern IT technologies are increasingly getting data-centric, fostered by the broad availability of data acquisition, collection and storing platforms. The concepts of linked and open data have enabled a principally new dimension of data analysis, which is no longer limited to internal document collections, i.e., “local data”, but comprises a number of heterogeneous data sources, in particular from the Web, i.e., “global data”. However, existing data processing and analysis technologies are still far from being able to scale to demands of global and, in case of large industrial corporations, even of local data, which makes up the core of the “big data” problem.

JUNIPER (Java platform for high PErformance and Real-time large scale data management) is an EU FP7-ICT project, started in December 2012, aiming to establish a development platform for new-generation data-demanding applications. Creation of more effective data processing environments, also in terms of the power consumption, and offering real-time guarantees of the data services are tremendous challenges that JUNIPER addresses.

The JUNIPER platform helps Big Data analytic applications meet requirements of performance, guarantees, and scalability by enabling access to large-scale computing infrastructures, such as Cloud Computing and High Performance Computing. Guided by requirements of enterprise Big Data applications, the project will exploit synergies between the major parallelization technologies (such as MPI, MapReduce, StarSs) and elaborate new paradigms in data-centric parallel processing which will balance flexibility and performance of data processing applications in heterogeneous computing architectures.

The total duration of the project is 3 years.

### Project partners:

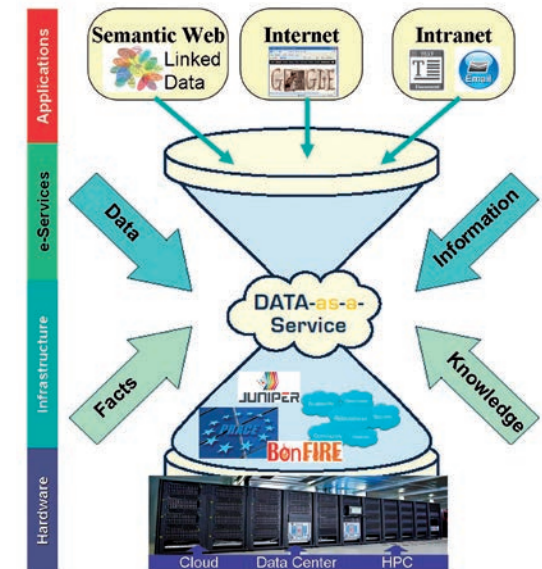
- The Open Group (United Kingdom)  
<http://www.opengroup.org/>
- Aicas GmbH (Germany)  
<http://www.aicas.com/>
- University of York (United Kingdom)  
<http://www.york.ac.uk/>
- HLRS (Germany)  
<http://www.hlrs.de>
- Scuola Superiore Sant'Anna (Italy)  
<http://www.sssup.it/>
- Softeam (France)  
<http://www.softeam.fr/>
- petaFuel GmbH (Germany)  
<http://www.petafuel.de/>
- HMI GmbH (Germany)  
<http://hmi-tec.com/>

### The project's web site:

[www.juniper-project.org](http://www.juniper-project.org)

### Contact: Dr. Alexey Cheptsov

Hochleistungsrechenzentrum Universität Stuttgart  
Nobelstraße 19, 70569 Stuttgart, Germany  
Phone: +49-711-68560470  
E-Mail: [cheptsov@hlrs.de](mailto:cheptsov@hlrs.de)



JUNIPER – a development platform for high performance and real time Big Data applications.