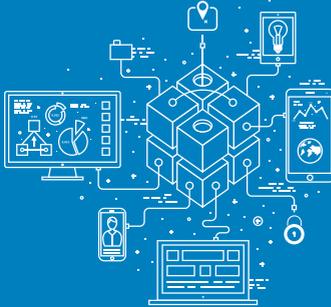




EUROPE - BRAZIL COLLABORATION OF BIG DATA SCIENTIFIC RESEARCH THROUGH CLOUD-CENTRIC APPLICATIONS

Creating a sustainable international - European and Brazilian cooperation effort in the area of cloud services for Big Data analytics.



FOCUS

- Develop advanced **QoS-aware clouds** to support Big Data services.
- Develop innovative **Big Data services** for capturing, federating and annotating large volumes of data.
- Use innovative and efficient technologies to guarantee compliance with **security and privacy policies**.
- Transfer this technology to a real user scenario with **high social and business impact**, and of high interest for both Europe and Brazil.

ADDRESSING CLOUD COMPUTING CHALLENGES

- Vendor lock-in**
 - Infrastructure-agnostic solutions
- Flows of data & portability**
 - Data Quality as a Service
 - Compromise between on-the-fly access and replication
- Personal data protection & privacy**
 - Privacy annotation of data and processing
 - Assurance of security properties of clouds and Big Data services (Quality of Protection)
- Integration of multiple programming models**
 - Abstractions to specify QoS constraints
 - Unified programming interface for computing, data analytics, and security APIs

EUBra-BIGSEA develops a framework to support QoS of data analytics services on top of cloud computing infrastructures while ensuring security and privacy.

BIG DATA ANALYTICS PLATFORM

- QoS/laaS middleware implementing smart policies for vertical and horizontal elasticity and supporting advanced business models.
- Agnostic programming model automatically bridging data analytics and QoS functionalities.
- Elastic and dynamic Big Data services integrating data models for heterogeneous data addressing Volume, Variety, Velocity and Veracity as well as privacy, security and QoS challenges.
- Privacy and Security mechanisms performing efficiently with Big Data services and improving cloud services' resiliency.

EUBra-BIGSEA addresses the needs of service and application developers by implementing an innovative data analytics platform to ease application deployment and provide improved performance while optimising resources' usage.

PUTTING TO USE EUBRA-BIGSEA TECHNOLOGY

-Massively connected societies-

- A data-intensive use case on traffic information recommendation from the municipality data of Curitiba, in Brazil, extendable to other cities.
- Characterised by large volumes of heterogeneous data and real-time processing the use case requires efficient and budget constraint prediction models.
- Citizens benefit predictive information based on climate conditions and historic data.

A journey planner looking at cost, comfort, safety and duration, drawing on such as weather information and social media posts in real-time to recommend users the most efficient route.

Project Partners



To find out more visit

www.eubra-bigsea.eu



Any updates you'd like to share with us, get in touch at

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