

SPACE-DATA ROUTERS

Space-Data Routers For Exploiting Space Data

SHARING SPACE KNOWLEDGE ON EARTH

Inadequate sharing of data from space exploration missions hampers scientific progress. The Space-Data Routers project provides new technological tools to address this failure.

Space missions are costly, challenging and time consuming. Years of preparation culminate in intense anticipation, aspiration, and excitement every time a spacecraft takes off from Europe's spaceport, or from spaceports in other major space powers. Such missions represent global efforts to enhance our understanding of the universe. Yet today the insights we gain in space are not yet exploited to the fullest degree on Earth. Inadequate sharing of space data represents a significant collective failure of the fragmented global space community.

Indeed, the ultimate objective of most space missions is to return space data to Earth with the aim to take human scientific knowledge forward.

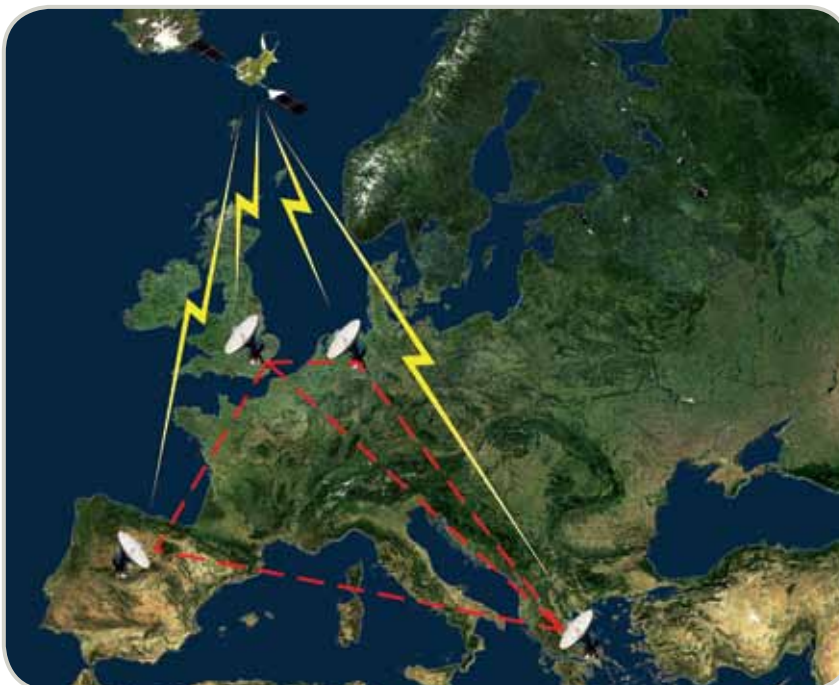
The Space-Data Routers project presents a novel and innovative approach for enhancing such data sharing. Adopted to the needs of the space community, the project proposes a new communication infrastructure for beyond state-of-the-art space data dissemination. Through the development of Space-Data Routers, which integrate administrative instructions and data dissemination policies of individual Space Agencies, the project is set to form an overlay which is suitable for efficient global exploitation of space data.

In doing so, Space-Data Routers is set to impact positively both at European and international level.

Indeed, the project promotes an open source policy that is set to both enhance sharing of data from space missions, and support the dissemination and exploitation of results of research projects that rely on such data.



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Space-Data Routers establishes a means for enhanced sharing of data from space missions.

QUESTIONS & ANSWERS

What do you want to achieve with this project?

The ultimate goal of Space-Data Routers is to boost collaboration and competitiveness of ESA, European Space Industry and European Academic Institutions towards an efficient architecture for exploiting space data. The proposed approach relies on Delay-Tolerant Networking.

Why is this project important for Europe?

Space-Data Router constitutes a pioneering target, allowing for the exploitation of massive data, increasing the return of all scientific missions and bridging the communication gap between Deep Space and internet-networking protocols but also the gap of agency interoperability.

How does your work benefit European citizens?

With Space-Data Routers, ESA will gain a significant advantage in the new era of Space exploration, allowing for missions that observe climatic changes, weather changes, fire alarms or assist other social but also defence objectives – for the benefit of European citizens.

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LIST OF PARTNERS

- Democritus University of Thrace, Greece
- VEGA IT GmbH, Germany
- Space Internetworks Ltd., Greece
- National Observatory of Athens, Greece
- University of Plymouth, United Kingdom

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PROJECT INFORMATION

Space-Data Routers For Exploiting Space Data
(SPACE-DATA ROUTERS)

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