

Tellus

Cross-domain Federation and Network for Critical Applications

TELLUS expands the Gaia-X vision with the efficient integration of heterogeneous network infrastructures. Currently, many federated cloud services rely on workloads distributed across multiple locations, interconnected via the public internet. However, certain critical use cases demand a specific network performance beyond the usual conditions of latency, bandwidth, and resilience.

To enable seamless interaction between cloud providers and companies in such scenarios, TELLUS seeks to technically integrate all elements of the connection, including corporate networks, service providers, network operators, internet exchanges, and cloud providers. TELLUS aims to create an overlay across the boundaries of the various providers through well-integrated software instances and standardized interfaces.

The consortium implements three specific examples from the industry to implement the overlay. In the use case "Equipment-as-a-Service (EaaS) - Pay by part" companies can utilize fully automated laser machines to produce sheet metal parts as customers without the need to buy or lease them. Instead, they are billed per processed workpiece, allowing for flexible production and respond to dynamic changes in the market. In another use case, an intelligent glove translates human hand movements into digital processes, which can be used for the remote control of applications in real-time. The third use case "Digital Twin" employs realistic representations of objects or processes to significantly improve manufacturing processes in distributed production facilities. In all three use cases, exceptionally low and stable latencies are crucial, which are challenging to achieve with conventional network structures.



Tellus



Domain

Industry 4.0

Start

November 2021

Term

3 years

Funding amount

8.754.794,22 €

Consortium Management

DE-CIX Management GmbH
Mr Dr. Christoph Dietzel

Project Coordination & Press Contact

DE-CIX Management GmbH
Ms Alina Rubina - info@de-cix.net

Partner

Cloud & Heat Technologies GmbH
1&1 IONOS SE
PlusServer GmbH
SpaceNet AG
KAEMI GmbH
WOBCOM GmbH
TRUMPF Werkzeugmaschinen GmbH + Co. KG
Mimetik UG

Website

<https://www.tellus-project.de>

Further information:



✉ gaia-x-hub@acatech.de

🌐 gaia-x-hub.de

in [@GaiaXGermany](https://www.linkedin.com/company/GaiaXGermany)

✂ [Gaia-X Hub Germany](#)