

Edge Computing-based Simulations



hub:raum
tech incubator of T

**CAMPUS
NETWORK 2021
PROGRAM**

Campus Network Program 2021

As part of the Campus Network Program 2021, we as T-Systems - together with Deutsche Telekom's tech incubator hubraum - are looking to find partners with best-in-class solutions that represent the benefits of edge computing and 5G campus networks. A first application phase focusing on "Computer Vision" ended end of March. Now we are interested in solutions contributing especially to the areas "autonomous drones", "voice and speech recognition" or "Edge Computing-based simulations". More information about the program can be found [here](#).

Edge Computing-based simulations: Our vision

Edge-Computing-based simulations provide optimization to systems for efficient operational environments. Simulations are used to manage today's complex, ever-changing environments with connected devices in real-time. By continuous consideration of every possible process-variation, optimal processes in complex systems can be identified and applied to increase operational efficiency. By automatically reacting and adapting to changes in the system, such as the failure of one machine, optimal and seamless operation can be maintained.

Regarding the real-time optimization of process and environments we are thinking about e.g.

- Capacity planning
- Scheduling of personnel tasks
- Materials management
- Inventory management
- Logistics
- Production flows
- Coordination of devices (e.g. logistics robots)
- ...

Since simulations are based on complex models which replicate the real world and all its attributes, the computation of simulations can be quite demanding. Also, since many sensors and devices send a lot of data as input for the simulations, the underlying network needs to provide a high bandwidth and capacity. Also, simulations need to run and be able to communicate with every relevant device/personnel/etc. in real time to quickly adapt to every unplanned process deviation.

T-Systems Edge Computing platform in combination with Telekom's 5G Campus Networks address the described challenges for realization of simulations on customers campus. Edge Computing offers on premises, high-performance and real-time processing of data. Due to the local processing, high data security is also ensured. With our platform we can deliver on site solutions on our own powerful EdgAir or edge computing infrastructure from our hyperscaler partners like AWS or Microsoft. Our containerized architecture allows us to integrate our own solutions alongside with partner solutions in a very convenient way.

The advantages of Edge Computing are supplemented by Telekom's 5G Campus Networks, which offer customers a private 5G Network which provides them with high bandwidth, capacity, security, and low latency for every solution.

T · · Systems ·

Let's power
higher performance

Which partners are we looking for?

With this program we are inviting every company which believes its solutions fit the benefits of Edge Computing and 5G Campus Networks to get in touch with us. However, we are especially interested to find partners which provide solutions within the area of simulations.

The following paragraphs define requirements for potential partners.

What makes a great solution?

- You offer an application or system which provides one or multiple types of simulations to manage systems or environments (examples are listed on page one).
- Your solution is deployable on a local edge computing platform and can run without a connection to a central cloud.
- Your solution has a unique selling proposition in the market.
- Your solution has a proven maturity.
- Your solution is General Data Protection Regulation (GDPR) compliant.

What makes a great partner?

- You have a good industrial experience and in-depth understanding of simulations.
- You are open to become part of a flexible ecosystem.
- You have an idea of how to make use of the capabilities of edge computing and high-performance network connectivity like 5G or Wifi 6.

Why should you consider a partnership with us?

- You have the chance to integrate your solution within our product portfolio and to benefit from T-Systems and Telekom's sales activities and get to reach out to our business customers.
- You become part of highly flexible ecosystem.
- You get the opportunity to test your solution on T-Systems Edge Computing platform and Telekom's 5G Campus Network infrastructure.
- You get access to experts regarding campus networks as well as edge computing.

If you are interested, just [submit your application](#) until **May 21, 2021!**