P3 develops an RF Digital Twin on Deutsche Telekom’s sovereign clouds infrastructure.

P3's Nationwide 3D Simulation of Mobile Networks to Support Data-Driven Network Planning, Rollout Decisions, and Operational Network Optimization.

Stuttgart, Baden-Wurttemberg Jun 25, 2026 (Issuewire.com**)** - P3 is preparing a pilot to develop a nationwide Digital Twin for mobile networks across Germany. The goal of the initiative is to combine real network and measurement data with topology and building data in a physics-based 3D model. This will enable network planning, expansion decisions, and network optimization to become more simulation-based, data-driven, and supported by AI agents going forward.

The planned RF Digital Twin creates a digital representation of the mobile network environment and enables the simulation of relevant network parameters such as coverage, capacity, interference, and energy efficiency. On this basis, the technical, operational, and economic impacts of network, rollout, and investment decisions can be assessed before implementation.

A particular focus of the initiative is on digital sovereignty. The processing of data, simulations, and AI workloads is intended to take place entirely within cloud infrastructure located in Germany. This allows the pilot to address key requirements around data privacy, regulatory compliance, and resilient digital infrastructure.

Technologically, the approach is based on a modern digital twin stack leveraging NVIDIA technology. Planned components include 3D radio visualization, beam modeling, and time-based scenario simulations. Results will be made accessible via web-based interfaces, APIs, and — looking ahead — immersive access options for engineering and management stakeholders.

"With this pilot, we want to show how AI, real network data, and digital twins can work together to plan and optimize mobile networks faster, more efficiently, and more sustainably," says Hakan Ekmen, CEO P3 communications. "What's critical for us is that technological innovation and digital sovereignty go hand in hand — made in Germany, with a clear focus on measurable customer value."

"Digital sovereignty, resilient infrastructures, and secure cloud environments are fundamental prerequisites for the next level of industrial AI applications," says Lars Neumann, SVP T Cloud, Deutsche Telekom. "By leveraging the Telekom Cloud, P3 can process its data to the highest standards of security and sovereignty."

The use of the T-Cloud builds on ongoing discussions between P3 and Telekom around AI infrastructure, cloud, sovereign data center operations, and AI-based industrial solutions.

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Source : P3

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