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SHAPING TECHNOLOGY FOR ALL

WiFi-Sensing

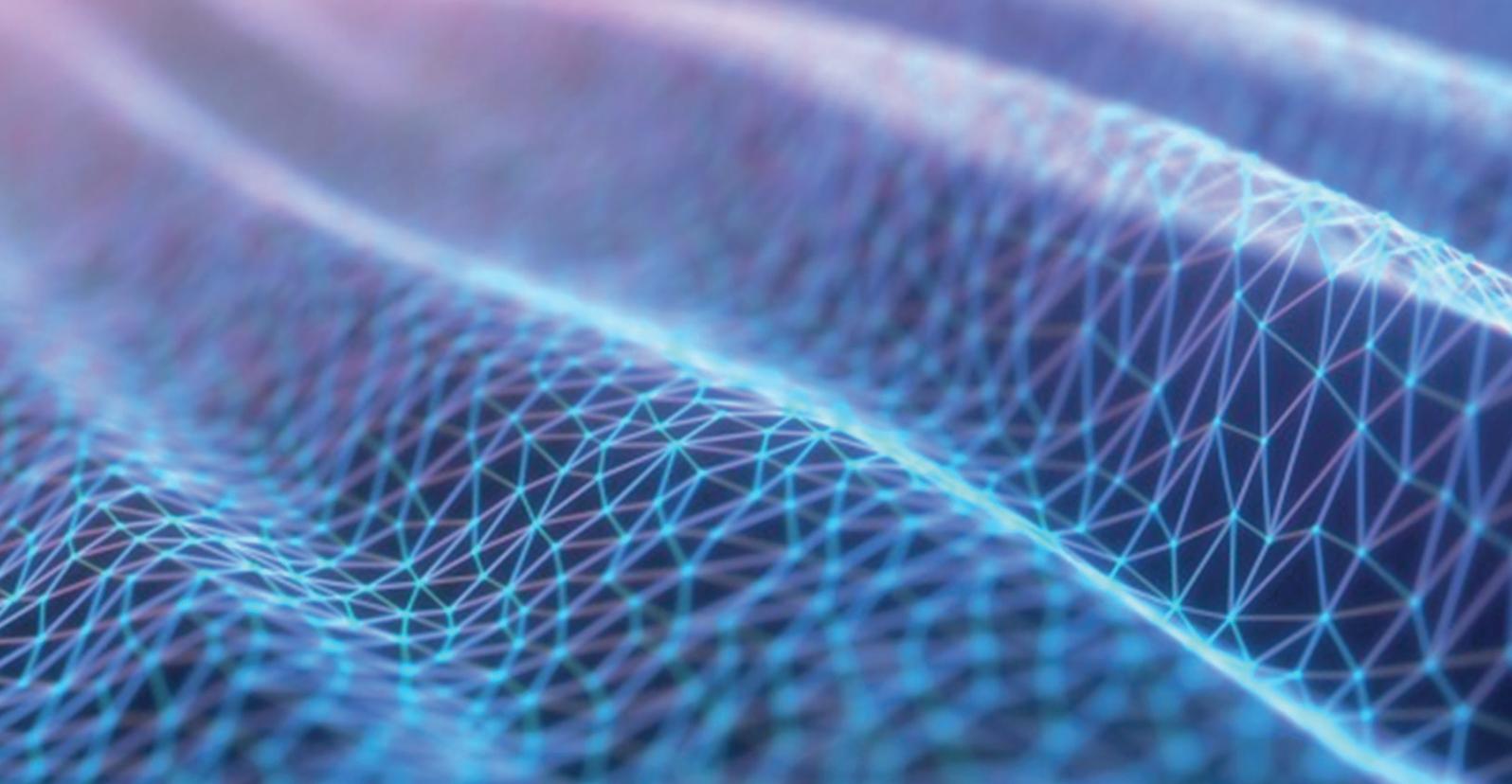**For peace of mind at home**

With WiFi-Sensing and the flexibility of the latest router software, Deutsche Telekom is creating an entirely new ecosystem for innovative use cases and partner opportunities.

It can turn your home's WiFi system into a smart motion sensor and lots more! WiFi-Sensing uses AI to detect movement by recognizing disruptions in existing WiFi signals. No extra devices are needed. Enjoy real-time motion and presence detection that's both private and nonintrusive. Unlike cameras, it captures no visual data. It can be so precise as to even detect a person's breathing, pulse, and heart rate. This cutting-edge technology delivers seamless, complete home coverage for smarter, safer living.

Key facts

- **New ecosystem based on WiFi technology** – enables innovative use cases and partner services
- **Home security** – detects and sends real-time alerts of any unusual activities and intrusions
- **Energy and home automation** – presence- and movement-based automation of routines
- **Nonintrusive and privacy-friendly** – detection without cameras or visual recordings
- **Sustainable and cost-effective** – uses existing WiFi infrastructure, no additional devices required
- **Elderly care and well-being** – supports independent living and health monitoring

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WiFi-Sensing is a versatile, human-centered technology that provides innovative solutions and a variety of useful applications for enhancing safety, sustainability, and well-being, leading to greater quality of life and promoting peace of mind in a nonintrusive way. It recognizes disturbances in WiFi signals caused by movement, allowing for real-time motion detection within a certain area and can reliably identify and differentiate between human and pet movement.

Ensuring home security is a concern for homeowners and renters alike. WiFi-Sensing offers a smart solution for detecting unusual activities. The coverage does not depend on the line of sight and works through walls, providing complete home coverage without recording visual data but sending real-time notifications, eliminating privacy concerns and the need for special hardware.

WiFi-Sensing boosts energy efficiency, addressing rising energy costs and the need for sustainability. It enables presence-based automation by detecting when spaces are unoccupied, automatically switching heating or lighting to eco mode, helping to significantly reduce energy use and costs whilst giving users control over consumption and promoting a smaller environmental footprint.

Aging populations and caregivers are faced with the challenge of ensuring safety without compromising dignity. WiFi-Sensing enables monitoring without cameras or wearables, ensuring privacy with unobtrusive detection. Real-time alerts are available to notify users about changes in movement patterns, such as inactivity or potential falls, enhancing peace of mind, supporting seniors' independence, and improving health outcomes.

Our showcase visually demonstrates how WiFi-Sensing detects motion and presence by capturing disturbances within the WiFi Network – highlighting its precision and diverse applications in home security and automation, energy efficiency, and well-being while underscoring its privacy-first design. Backed by a flexible router software system, it sets the stage to introduce our WiFi-based ecosystem, unlocking innovative use cases and attracting new partners.

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