

Siemens and O₂ Telefónica partner to develop solutions based on 5G network slicing

- **Siemens and O₂ Telefónica Germany launch the first fully integrated connectivity solution based on 5G network slicing, designed for Siemens' automation applications**
- **The product is available for water utilities and wastewater treatment companies in Germany**
- **A pilot customer from North Rhine-Westphalia, Germany, is already testing the new solution**

The technology company Siemens and the telecommunications provider O₂ Telefónica are launching a partnership in Germany to advance the networking of the water industry with a new connectivity solution for customized 5G mobile networks. The solution will be marketed by Siemens to thousands of water and wastewater utilities in Germany. Unlike the manufacturing industry with its local private 5G campus networks, the water industry's facilities are widely distributed and need to be connected over long distances.

The new connectivity solution "5G Slice for the Water Industry" allows water utilities to monitor and control their entire system of automation technology over a virtual 5G network using 5G network slicing technology. These networks are optimized to reliably deliver defined Quality of Service (QoS) for automation applications. This is critical for processes like pressure control, flow measurement, and automated emergency response at water utilities' mostly distributed sites.

5G network slicing is a technology that divides O₂ Telefónica Germany's physical 5G mobile network into customized virtual networks called slices. These 5G slices are

regionally limited and optimized for individual use cases in terms of their speed, response time, and security. The two partners worked together to develop and test a solution consisting of 5G routers from Siemens and 5G slices from O₂ Telefónica to fulfill the high communication requirements of automation protocols. Thanks to the end-to-end separation of data traffic from the public Internet, the solution ensures a high level of cybersecurity and data protection for water companies which are subject to critical infrastructure regulations.

"By working with O₂ Telefónica Germany, we can offer our customers in the water industry a secure and reliable communication solution for their distributed applications. The combination of Siemens hardware and 5G network slicing delivers the necessary quality, reliability and security for demanding automation applications," said Axel Lorenz, CEO Process Automation at Siemens.

"As a leading technology company, Siemens is the ideal partner for the practical application of 5G network slicing. For the first time, this technology is driving industrial applications via mobile communications with defined performance parameters. Our jointly developed solution marks the breakthrough for 5G network slicing in critical, distributed industrial applications in Germany," said Alfons Lösing, Chief Partner and Wholesale Officer of O₂ Telefónica.

The solution is already being tested by a water utility in the state of North Rhine-Westphalia, Germany, and addresses one of the biggest challenges in the water industry: a secure and efficient central orchestration of distributed infrastructure, from pumping stations and reservoirs to water towers and water treatment plants. Until now, many water utilities had to spend lots of effort for monitoring, control, and connectivity, which is often time-consuming, costly, and requires complex individual solutions. With the new connectivity solution from Siemens and O₂ Telefónica, water utilities can easily and securely connect their entire infrastructure via 5G network slicing technology and integrate additional sites into their network faster.



Siemens and O₂ Telefónica Deutschland cooperate (from left): Axel Lorenz, CEO Process Automation, Siemens; Alfons Lösing, Chief Partner und Wholesale Officer, O₂ Telefónica; Herbert Wegmann, General Manager Digital Connectivity and Power, Siemens.



Industrial 5G Router from Siemens



Water treatment plant

For more information about Siemens' industrial wireless and private 5G offering for industry, please visit: <https://sie.ag/2NCxbF>

This press release can be found at: <https://sie.ag/5RRoP2>

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Siemens AG (Berlin and Munich) is a leading technology company focused on industry, infrastructure, mobility, and healthcare. The company's purpose is to create technology to transform the everyday, for everyone. By combining the real and the digital worlds, Siemens empowers customers to accelerate their digital and sustainability transformations, making factories more efficient, cities more livable, and transportation more sustainable. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a leading global medical technology provider pioneering breakthroughs in healthcare. For everyone. Everywhere. Sustainably. In fiscal 2024, which ended on September 30, 2024, the Siemens Group generated revenue of €75.9 billion and net income of €9.0 billion. As of September 30, 2024, the company employed around 312,000 people worldwide on the basis of continuing operations. Further information is available on the Internet at www.siemens.com.

O₂ Telefónica is a leading full-service provider of telecommunications services for private and business customers. The portfolio of the core brand O2 and various secondary and partner brands includes traditional telephony and internet connections as well as innovative digital services in the area of the Internet of Things and data analysis. In mobile communications, O2 Telefónica manages more than 45 million mobile lines (incl. M2M - as at 31.12.2024). No network operator connects more people in this country. The company's high-performance and award-winning mobile network reaches more than 99 percent of the population. In the fixed network, O2 Telefónica offers its customers leading technological diversity and geographical availability in Germany. In the 2024 financial year, the company generated revenue of 8.5 billion euros with around 7,500 employees. The company is majority-owned by the Spanish telecommunications group Telefónica S.A., based in Madrid, one of the largest telecommunications groups in the world.