NEWS RELEASE

Telefónica Deutschland and Blue Planet Demonstrate How AI Agents Can Accelerate 5G Network Slicing Service Design

2026-06-23

- Joint proof of concept shows how agentic AI can reduce complex service design from weeks to minutes
- Collaboration builds on Telefónica Deutschland's Multi-Domain Service Orchestration (MDSO) program
- Results highlight the potential of AI-driven operations for next-generation B2B services

BERLIN--(BUSINESS WIRE)-- **Telefónica Deutschland** and **Blue Planet**, a division of **Ciena** (NYSE: CIEN), have successfully completed a joint proof of concept (PoC) exploring the use of AI agents to accelerate the design and fulfillment of advanced 5G network slicing services. The initiative demonstrates how agentic AI can help communications service providers address the growing operational complexity of next-generation services while significantly reducing service design time.

This press release features multimedia. View the full release here:
https://www.businesswire.com/news/home/20260623839595/en/

As part of Telefónica Deutschland's ongoing transformation of its operations support systems (OSS) and its journey toward higher levels of network autonomy, the company is focused on industrializing service and network deployment through its **Service & Network Factory**. A key enabler of this transformation is Telefónica Deutschland's **Multi-Domain Service Orchestration (**MDSO**)** program, which provides end-to-end orchestration across network domains and underpins the introduction of new, complex services.

Within this context, 5G network slicing represents a critical use case: a high-value B2B service characterized by complex specifications, evolving standards, and a strong dependence on expert knowledge. Designing and deploying slicing services efficiently is essential to reducing time to market while maintaining service quality and consistency across domains.

To address these challenges, Telefónica Deutschland collaborated with Blue Planet to test how AI agents could support engineers throughout the service lifecycle—from intent-based design to catalog creation and fulfillment. The PoC leveraged **Blue Planet AI Studio**, an OSS-native platform for building and running AI agents, integrated directly with Telefónica Deutschland's existing **MDSO environment**. This ensured that AI-driven automation was embedded into real operational workflows rather than operating as a standalone experiment.

The results of the PoC were significant. Tasks that previously required highly specialized expertise and manual effort—such as defining slice specifications and generating standards-compliant service payloads—were completed in minutes instead of weeks. By abstracting complex standards and parameters into AI agents and reusing catalog elements managed through MDSO, the solution improved design speed, consistency, and quality, while reducing errors through guided, repeatable processes.

"Designing and delivering 5G network slicing services at scale is inherently complex and places significant demands on engineering teams," said **Eva Ulicevic, Director of Architecture, Strategy and Technology Enablement at Telefónica Deutschland**. "This proof of concept has shown that AI agents, when integrated with our MDSO framework, can meaningfully simplify service design, reduce lead times, and help democratize expert knowledge. It is an important validation of how intent-based, AI-driven approaches can support our evolution toward more autonomous operations, allowing us to provide additional and enhanced customer services."

The PoC also reflects Telefónica's broader vision for AI-native operations and increasing network autonomy. "This proof of concept supports Telefónica's ambition to advance towards higher levels of network autonomy, reinforcing the role of AI in transforming service and network operations. Moving beyond traditional automation requires evolving operational systems into AI-native platforms that can progressively increase autonomy," said **Javier García, Head of Core IT at Telefónica Global CTIO**.

From Blue Planet's perspective, the collaboration highlights the value of combining agentic AI with a mature orchestration foundation. "Telefónica Deutschland brought a clear operational vision and a robust MDSO program to this collaboration," said **Joe Cumello, Senior Vice President and General Manager, Blue Planet**. "By building AI agents directly into their orchestration workflows using **Blue Planet AI Studio**, this PoC demonstrates how service providers can accelerate innovation while maintaining control, standards compliance, and operational rigor."

Beyond the immediate outcomes, the PoC provides valuable insight into how AI-driven automation can

complement multi-domain orchestration to support the future evolution of network and service operations. By validating the role of AI agents within the MDSO framework, Telefónica Deutschland and Blue Planet have established a foundation for scaling this approach to additional use cases and enabling more dynamic, intent-based services.

About Telefónica Deutschland

Telefónica Deutschland is a leading full-service provider of telecommunications services for residential and business customers. The portfolio of the core brand O2 and various secondary and partner brands includes not only traditional telephone and Internet connections, but also innovative digital services in the areas of the Internet of Things, security, entertainment, and data analysis. In mobile communications, Telefónica Germany serves over 35 million mobile connections (as of December 31, 2025). The company is a leading mobile communications provider in the consumer market and in the market for innovative partner offerings, as well as a rapidly growing provider in the solutions business for corporate customers. The company's powerful and award-winning mobile network reaches more than 99 percent of the population. In the fixed-line network, Telefónica Germany offers its customers leading technological diversity and geographical availability in Germany. In fiscal year 2025, the company generated revenue of €8.2 billion and employed 7,650 people at the end of 2025. The company is majority-owned by the Spanish telecommunications group Telefónica S.A., based in Madrid, one of the world's largest telecommunications groups.

About Blue Planet

Blue Planet empowers communications service providers (CSPs) to be more software-driven, digital businesses with the industry’s first truly cloud-native operations support systems (OSS) platform. The Blue Planet intelligent automation portfolio helps CSPs automate network and service operations to speed the introduction of new services across any network domain or vendor. A division of **Ciena** and a key provider for many of the world’s leading CSPs, Blue Planet brings unparalleled expertise in accelerating digital transformation. For updates on Blue Planet, visit **http://www.blueplanet.com/**.

Note to Ciena Investors

You are encouraged to review the **Investors section** of our website, where we routinely post press releases, SEC filings, recent news, financial results, and other announcements. From time to time we exclusively post material information to this website along with other disclosure channels that we use. This press release contains certain forward-looking statements that are based on our current expectations, forecasts, information and assumptions. These statements involve inherent risks and uncertainties. Actual results or outcomes may differ materially from those stated or implied, because of risks and uncertainties, including those detailed in our most recent annual and

quarterly reports filed with the SEC. Forward-looking statements include statements regarding our expectations, beliefs, intentions or strategies and can be identified by words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "should," "will," and "would" or similar words. Ciena assumes no obligation to update the information included in this press release, whether as a result of new information, future events or otherwise.

View source version on businesswire.com: **https://www.businesswire.com/news/home/20260623839595/en/**

Press Contacts:
Wei Wei Chua
Ciena Corporation
+65 9833 2654
pr@ciena.com

Investor Contact:
Gregg Lampf
Ciena Corporation
+1 (410) 694-5700
ir@ciena.com

Source: Ciena Corporation