

Press Release

An Internet Exchange in the Stars: DE-CIX Charts Next Frontier of Orbital Interconnectivity

From laser links to the prospect of orbital Internet Exchanges, DE-CIX is exploring new ways to optimize space-based communications – reducing latency, boosting resilience, and laying the groundwork for high-speed orbital interconnectivity.

Frankfurt (Germany), 9 September 2025 – DE-CIX, the world's leading Internet Exchange (IX) operator, is expanding its vision of interconnection beyond terrestrial boundaries. <u>Through its Space-IX initiative</u>, DE-CIX is preparing for this future and already considering what the first orbital IX might look like.

Just as the company connects over 4,000 networks across more than 60 IX locations on Earth, Space-IX aims to extend that capability to low-Earth orbit (LEO) satellite constellations and other space-based assets — enabling them to interconnect with each other and with terrestrial digital ecosystems.

"Wherever networks are created, interconnection should follow," says Ivo Ivanov, CEO of DE-CIX. "We've spent 30 years building the backbone of the Internet here on Earth. Now we're bringing that same neutral, high-performance interconnection model to the next layer of digital infrastructure, above the clouds and to the stars."

A growing number of tech visionaries, including British astronaut Tim Peake, are sharing ideas that once sounded like science fiction, such as placing data centers in low-Earth orbit. While that reality may be years away, the work to optimize space-based communications has already begun.

As part of the European Space Agency's OFELIAS project, DE-CIX is collaborating with the German Aerospace Center (DLR) to research how laser-based communications can improve satellite connectivity. These optical satellite links promise higher speeds than traditional radio systems, but require smarter protocols and algorithms to overcome real-world challenges such as cloud cover and atmospheric interference. While OFELIAS is focused on optimizing data flow between satellites and ground stations, DE-CIX's broader Space-IX initiative is exploring how space-based infrastructure can be interconnected at scale, laying the groundwork for the world's first Internet Exchange in orbit.

"As satellites become part of the digital supply chain, whether delivering broadband to underserved communities, powering AI for businesses, or enabling orbital analytics, we need an architecture that unites space and Earth into one seamless ecosystem," Ivanov added. "This collaboration is the very beginning of our answer to that challenge."

Space is fast becoming the next digital frontier. In August, DE-CIX India also <u>made history</u> as the country's first Internet Exchange platform to add Starlink to its interconnection ecosystem. Through its global Space-IX program, DE-CIX provides satellite operators like

Starlink with interconnection solutions that anchor orbital networks to terrestrial reliance especially for latency-sensitive applications.

From global broadband and IoT to remote sensing and AI, the space economy is projected to reach \$1.8 trillion by 2035. DE-CIX sees a pressing need to ensure orbital networks don't evolve in isolation, but instead interconnect intelligently with terrestrial networks, content providers, and cloud platforms.

###

About DE-CIX

DE-CIX, pronounced DEE-KICKS [d'i:-k'xks], is the world's leading operator of Internet Exchanges (IXs). Founded in 1995, the company is celebrating its 30th anniversary in 2025. DE-CIX offers its interconnection services in 60 locations in Europe, Africa, North and South America, the Middle East, and Asia. Today, accessible from data centers in over 600 cities world-wide, DE-CIX interconnects thousands of network operators (carriers), Internet service providers (ISPs), content providers and enterprise networks from more than 100 countries, and offers peering, cloud and AI connectivity, and other interconnection services. DE-CIX Frankfurt is one of the largest Internet Exchanges in the world, with a data volume of over 45 Exabytes per year (as of 2024) and close to 1100 connected networks. Close to 250 colleagues from over 35 different nations form the foundation of the DE-CIX success story in Germany and around the world. Since the beginning of the commercial Internet, DE-CIX has had a decisive influence – in a range of leading global bodies, such as the Internet Engineering Task Force (IETF) – on co-defining guiding principles for the Internet of the present and the future. As the operator of critical IT infrastructure, DE-CIX bears a great responsibility for the seamless, fast, and secure data exchange between people, enterprises, and organizations at its locations around the globe.

Further information at www.de-cix.net

Media Contact DE-CIX:

Judith Ellis, Nils Klute, Elisabeth Marcard, Viola Schreiber, Robert Stotzem, Emil Suhrab & Carsten Titt – Global Public Relations – Telephone: +49 (0)69 1730902 130 – Email: media@de-cix.net