



Press release

New data record at Europe's largest Internet Exchange: DE-CIX Frankfurt breaks the sound barrier at 14 Terabits per second

Frankfurt am Main, 15.12.2022: DE-CIX Frankfurt – Europe's largest Internet Exchange – has once again set a record for data throughput. At around 9pm CET yesterday evening – in parallel to the World Cup semi-final between France and Morocco – traffic flowing over the exchange hit [14.4 terabits of data throughput per second](#). With this new record, data traffic on the Frankfurt Internet Exchange at peak times has risen by 33 percent this year alone, and by more than 70 percent since the beginning of the Covid-19 pandemic in 2020. 14 terabits per second is as much data as simultaneously streaming over 3 million HD-quality videos. In the analog world, it corresponds to about 3.2 billion written A-4 pages, a stack almost 350 kilometers high – the distance between the Earth and the International Space Station (ISS). DE-CIX CTO Dr. Thomas King explains the increase as follows: "Normally – at least, before Covid-19 – the major Internet Exchanges were growing at about 10 percent a year. Such strong growth in such a short time is the result of more and more people using streaming services, for example to live-stream sports events or play online games. On top of that, simultaneous rollouts of software updates for computers or smartphones mean that data throughput is going through the roof." On the load limits of the DE-CIX infrastructure, King continues: "For DE-CIX, a peak like yesterday's does not pose problem, as we always keep at least 25 percent additional capacity available for such eventualities. In the long term, we always expand our capacity once we reach 65 percent of existing capacity. The remaining 35 percent is needed both for redundancy and to ensure there is always sufficient room for traffic growth," King concluded.

DE-CIX (German Commercial Internet Exchange) is the world's leading operator of Internet Exchanges (IXs), offering its range of interconnection services in more than 40 metro-markets in Europe, Africa, North America, the Middle East, India, and Southeast Asia. DE-CIX in Frankfurt, Germany, with a data volume of just shy of 30 Exabytes per year (as of 2021) and close to 1100 connected networks, is the largest Internet Exchange in Europe and one of the largest in the world.

What is a terabit per second? How much data is a throughput of 14 terabits per second?

- A terabit per second, Tbit/s or Tbps, is a dimension for the transmission speed of data.
- 1 terabit per second is 10^3 Gbit/s, 10^6 Mbit/s, 10^9 kbit/s, or 10^{12} bit/s, or 1,000,000,000,000 bit/s.
- The next lower data rates are specified in gigabits per second (Gbit/s) and megabits per second (Mbit/s).
- 14 terabits per second is equivalent to over 3 million HD-quality videos streamed simultaneously. In the analog world, it corresponds to about 3.2 billion written A-4 pages, a stack almost 350 kilometers high. This equals the distance between the Earth and the International Space Station (ISS).

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About DE-CIX

DE-CIX (German Commercial Internet Exchange) is the world's leading operator of Internet Exchanges (IXs). DE-CIX offers its interconnection services in more than 40 metro-markets in Europe, Africa, North America, the Middle East, India, and Southeast Asia. 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 interconnection services. DE-CIX in Frankfurt, Germany, is one of the largest Internet Exchanges in the world, with a data volume of close to 30 Exabytes per year (as of 2021) and close to 1100 connected networks. More than 200 colleagues from over 30 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

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