



Press release

80% of US Internet Exchanges are now data center and carrier neutral

Independent study by Internet Exchange (IX) operator, DE-CIX, reveals US trend toward data center and carrier neutrality to support new AI, cloud, and IoT applications.

New York, 8 October 2024: The US is steadily moving toward a data center and carrier neutral framework to support new AI and cloud-based applications, with 80% of all Internet Exchanges (IXs) in the region now data center and carrier neutral. That is according to a new independent [study](#) conducted by Dstream Group on behalf of DE-CIX, the global Internet Exchange operator.

With record-levels of net absorption of data center capacity throughout the US, the impact of the generative AI boom is being felt across the board. This comprehensive study provides insights into how the US interconnection landscape has evolved to cope with this demand and provides in-depth predictions about its future. In response to the rising need for high-performance interconnection – driven by the rise of cloud computing, artificial intelligence, and interest in online gaming and high-resolution streaming – deployment of IXs in the country has surged by 600% in the past decade, the majority of which are now data center and carrier neutral. These neutral platforms have on average four times more data centers from various operators connected to the platform than other IX models, offering enterprises and network operators greater choice and resilience opportunities.

Operated by independent specialists and distributed over data centers from multiple operators within a city or region, neutral IXs offer more access points and bring together more networks than the previously prevailing data center (DC)/carrier operated IXs. Of the top 50 largest IXs in the US, 35 (70%) are neutral, demonstrating a strong preference of network operators for the model. Neutral IXs create network density and opportunities for businesses and operators to leverage more resilient, low-latency, edge-based connectivity.

“The past decade has demonstrated the immense value of the neutral and distributed model for driving digital growth in the US market,” said Ivo Ivanov, CEO of DE-CIX. “The study shows that these IXs, which follow the European model of neutrality, are not only future-proof, but essential to support the emerging needs of cloud computing, AI, and IoT to enable extremely low latency connectivity for critical current and future use cases. We’re proud to have played a crucial role in the growth of this model in the US, establishing robust interconnection hubs that power innovation and economic growth.”

The study also reveals that in today’s top 50 US-based IXs, the distributed and neutrally operated IXs have an average of 11 connected facilities operated by a minimum of two independent data center operators within a metro area. In comparison, the DC/Carrier-operated IXs have an average of three facilities operated by a single operator within a metro area. Greater operator diversity and geographical distribution within the metro area allows companies freedom of choice of data center operators and brings interconnection closer to end-users, reducing latency and improving connectivity performance.

“The distributed, independently operated IX model has several significant advantages for building digital ecosystems,” explains Serge Radovic from Dstream Group, co-author of the study. “The neutral model can potentially be accessible from all colocation data centers within a metro area – and even from outside of the metro area. By leveraging connectivity to multiple data center operators, an IX can eliminate the risk of vendor lock-in, and make it easier to establish redundant connections, increasing the resilience of connectivity for critical use cases.”

How neutral IXs encourage ecosystem growth is exemplified in the study on the basis of New York, an interconnection powerhouse. New York is unique in the US interconnection landscape for having two large-scale neutral IXs alongside two large DC/carrier operated IXs, and almost double the average number of networks per IX found in US cities (134 compared to 70). In New York, this density is also reflected in the surge in demand for colocation space. The distributed and neutral IX model enables data centers outside of the city center to be incorporated into the interconnection ecosystem, providing companies with solutions to the data center squeeze being experienced in some historical hubs.

The study also investigates the growth in the data center market in the US, demonstrating the link between strong neutral IXs in a market and a diverse ecosystem of connectivity-focused data center operators. Demand is high and vacancy rates are low. Reflecting this, data center planning and construction is increasing, with Northern Virginia and Dallas/Fort Worth in the lead. With a current total of 11,200 MW of data center installed capacity across the US, a further 5,500 MW is currently being built, and another 12,600 is in planning, coming to over 160% growth in the near future.

As future trends in the interconnection and data center markets noted in the study – such as edge computing, disaggregated computing, and AI – continue to evolve, the demand for the resilience and flexibility offered by neutral IXs will only grow.

“In order for digital ecosystems to develop and prosper, connectivity is non-negotiable,” Ivanov added. “The US was home to the very first Internet Exchange, so it’s fitting that the country is now recognizing the need for connectivity to move closer to the edge, providing faster access as demand for latency-sensitive applications booms. The distributed and neutral model is the ideal way to encourage innovation, opening up market choice and providing multiple paths to connectivity.”

Summary of key findings:

- **Future-Proofing via Edge Computing and IoT**
The study emphasizes that as edge computing, IoT, and AI technologies evolve, the demand for low-latency and resilient interconnection solutions will increase. Distributed IXs are well-positioned to support these emerging trends by enabling faster data processing closer to end-users, which is critical for latency-sensitive applications like IoT, AI, and real-time analytics.
- **Resilience and Redundancy Are Essential**
The report underscores the increasing need for resilient and redundant connectivity. It highlights that geographical diversity, allowing businesses to connect to an IX from multiple data centers, as well as to multiple IXs within a metro area or across regions, has become business critical. This redundancy ensures lower latency and higher resilience, which are essential for modern digital services.

- **Rise of Secondary and Tertiary Markets**

As traditional data center hubs like New York and Los Angeles, and even Northern Virginia, face challenges such as space and power constraints, primary markets like Phoenix, Dallas/Fort Worth, and Chicago are gaining ground. Secondary and tertiary markets like Las Vegas, Reno, and Columbus are also becoming important growth areas supporting new data center builds. Tax incentives, lower costs, and strong connectivity, and well as space and power availability, will encourage the growth of secondary and tertiary markets. Furthermore, connectivity-focused data center markets will grow most strongly if they have access to high-performance distributed and neutral IXs.

- **Neutral IXs Foster Ecosystem Collaboration**

The study points out that neutral IXs play a vital role in creating collaborative ecosystems by connecting various data centers and aggregating networks. This model promotes competition, enhances choice for network operators and enterprises, and ultimately fosters faster growth for all players in the digital ecosystem. In fact, the report notes that the introduction of additional neutral IXs often enhances growth of other IXs in the market, rather than causing market fragmentation.

The report containing the research, titled ***Navigating the Digital Future: Neutral Internet Exchanges as Catalysts for Ecosystem Growth***, can be downloaded [here](#).

About the Research

Research into the IX market in the US was carried out by consultants from Dstream Group using historical data from PeeringDB, the industry standard and most comprehensive database of Internet Exchange-related data. Analysis of the US data center market and access to data was with the kind support of Arthur D. Little.

About DE-CIX North America

DE-CIX North America Inc., which began operations in 2014, is a wholly owned subsidiary of DE-CIX International AG, the international arm of DE-CIX, the world's leading Internet Exchange operator. Together, the DE-CIX Internet Exchanges in New York, Dallas, Chicago, Richmond, and Phoenix, along with the dedicated Cloud Exchange in Seattle, create the largest neutral interconnection ecosystem in North America. DE-CIX provides network and data center-neutral peering and interconnection services in North America. With access to DE-CIX North America's Internet and Cloud Exchanges, customers gain more control of their networks and access to world-class content and cloud providers, as well as IP transit, Virtual Private Network (VPN), and Blackholing services to mitigate the effects of DDoS attacks.

DE-CIX New York is the 4th largest Internet Exchange in the US. It is carrier and data center-neutral and Open-IX certified. The DE-CIX platform is distributed across major carrier hotels and data centers throughout each metro region it serves. DE-CIX operates more access points than any other Internet Exchange operator in North America. For more information, please visit <https://de-cix.net/north-america>

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