



Press Release

Next Generation IX: The world's leading Internet Exchange operators to introduce new cutting-edge 100G LR-1 technology

Frankfurt am Main, 20 June 2023. With the increasing demand for higher bandwidth and better performance, the world's leading Internet Exchange (IX) operators DE-CIX, LINX, AMS-IX & BCIX, will be introducing a new generation of optical transceivers, the 100G LR-1 (referred to as LR), to their platforms, starting in Frankfurt, London, Amsterdam, and Berlin.

While the existing 100G LR-4 uses four lasers, each carrying a signal of 25 Gbps, the new 100G LR technology uses only a single laser and uses pulse amplitude modulation (PAM4) to transmit data at 100 Gbps. The reduction in transceiver design complexity of the increasingly deployed 100G LR technology will result in power savings as well as better transceiver pricing. These advances not only provide advantages in the short to mid-term, but will also unlock new transceiver form factors that open up the potential for even greater performance and efficiency improvements in the future. The 100G LR technology is already available with a wide range of compatible routers from all major vendors and is compatible with current fiber technology. In order to satisfy today's customer demand for 100G LR, DE-CIX, LINX, AMS-IX, and BCIX will provide support in the upcoming months.

“With the new 100G LR technology, we are paving the way for the next generation of transceiver technology that will dominate the market for years to come. The future design of our DE-CIX interconnection platform will not only bring better programmability and higher scalability, commercial flexibility, and wider geographical reach, it will also make interconnection even easier for our customers through simplified technical processes,” says Dr. Thomas King, Chief Technology Officer at DE-CIX.

Richard Petrie, CTO at LINX stated, “For LINX, we will be enabling our London locations first after approving the solution in our lab. We will roll out as demand grows and as we see that LINX members need support in the shift to the improved optics. This will realise both benefits in cost and power for us and the LINX member base.”

Ruben van den Brink, CTO at AMS-IX says, “Offering 100G LR makes perfect sense, both for AMS-IX and for its customers. The lab tests proved that the new optics can be used for all the switches that are currently deployed in our Amsterdam PoPs. I appreciate the fact that we were able to collaborate with our partners in pushing this new standard. When Internet Exchanges join efforts, customers benefit, so I hope many more exchanges will start offering 100G LR soon.”

“After testing 100G LR and other 100G single-lambda standards in our lab, we have already introduced this new technology into our production network. By doing so we have built a very cost-efficient interconnection between data centers on the same campus. Offering the same benefits to our peers is just the next logical step,” says André Grüneberg, CTO at BCIX.

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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 50 metro-markets in Europe, Africa, North America, the Middle East, and 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 almost 34 Exabytes per year (as of 2022) 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.

About the London Internet Exchange (LINX)

With over 900 ASNs connecting from over 80 different countries worldwide, members of The London Internet Exchange (LINX) have access to direct routes from a large number of diverse international peering partners. LINX is much more than just the UK’s leading peering community. LINX can also connect you to cloud services, help you create closed user groups and private VLANs, and gain access to colocated infrastructure. With direct routes between your infrastructure and your most important customers and services, you can manage all your connectivity instances with confidence. Discover the flexibility and transparency of a member-owned organisation, and the reliability of trusting your traffic to critical national infrastructure. For additional information about LINX, please visit linx.net

About AMS-IX

AMS-IX (Amsterdam Internet Exchange) is a neutral member-based association that operates multiple interconnection platforms around the world. Our leading platform in Amsterdam has been playing a crucial role at the core of the internet for almost 30 years and is one of the largest hubs for internet traffic in the world with over

11 Terabits per second (Tbps) of peak traffic. Connecting to AMS-IX ensures customers such as internet service providers, telecom companies and cloud providers that their global IP traffic is routed in an efficient, fast, secure, stable and cost-effective way. This allows them to offer low latency and engaging online experiences for end-users. AMS-IX interconnects more than 1000 IP-networks in the world. AMS-IX also manages the world's first mobile peering points: the Global Roaming Exchange (GRX), the Mobile Data Exchange (MDX) and the Internetwork Packet Exchange (I-IPX) interconnection points.

About BCIX

BCIX is the leading Internet Exchange Point in Berlin, Germany. We operate a distributed infrastructure between 11 data centers across the city of Berlin, providing peering and interconnection services to our partners. We serve nearly 150 connected networks with a peak bandwidth of 900 Gigabits per second (Gbps). As a community we form a nexus for Berlin's rapidly growing and highly creative Internet scene, organized in a neutral, not-for-profit association. Our friends and associates from businesses and academic institutions support us in serving the internet at large. We are pleased to meet each other regularly at our roundtables.

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